THE JOURNAL

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. XXX SEPTEMBER, 1931 No. 9

CONTENTS

VOMITING OF PREGNANCY

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Much has been written on vomiting of pregnancy, its etiology and treatment. The theories that have been advanced as to its etiology are numerous and I shall attempt to enumerate only a few of them. Kaltenbach was one of the first to attempt to explain nausea and vomiting of pregnancy on the basis of a neurosis. Stowe, Ewing, Titus and others attribute this condition to a carbohydrate deficiency. According to Calkins it is a protein intoxication. Hurst, Carter and others have attempted to explain the excessive vomiting of pregnancy through some disturbance of the endocrine system. Dieckmann and R. J. Crossen believe that this condition is due to a deranged metabolism of the maternal organism, particularly the carbohydrates. Thalheimer is of the opinion that acidosis is the chief factor. W. C. Alvarez has demonstrated that in pregnant animals there is a disturbance in the normal intestinal gradients, namely, a reversal and inhibition of the peristaltic rushes and a slowing of the rate of travel of these waves. Hyperemesis, according to this authority, may be explained by these deviations from the normal in the pregnant woman. Shears favors the neurotic and toxic basis, as does Peterson. Williams is of the belief that all

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cases are on the toxic basis. In general, the majority favor the neurotic and toxic changes as the causative agents in the production of nausea and vomiting of pregnancy. However, some prefer to further subdivide these two general heads although not to any marked degree. Whatever theory or theories may be favored, one fact must be ever kept in mind. The so-called physiological vomiting of pregnancy may easily become pathological, and unless the patient is relieved death may follow.

Nausea and vomiting of pregnancy occurs in about fifty per cent of pregnancies. According to Peckham the symptoms occur in a form severe enough to require hospitalization in about once in every one hundred and fifty pregnancies, and in severe cases once in four hundred, also that age and parity have no part in the selection of its victims, and it appears to be more frequent in the upper strata of society. Nausea and vomiting of pregnancy especially in its more severe forms apparently is more common in this country than in England, or Germany, and rare in the uncivilized peoples.

The treatment of the so-called physiological vomiting of pregnancy or simple morning sickness or variations of this common condition associated with pregnancy is extremely varied. Many writers claim a more or less specific form of therapy for this condition. However, with such varied forms of treatment offered and the different results obtained it is obvious that the physician is called upon to use his utmost skill and resourcefulness and treat the individual, as well as her nausea and vomiting. What will benefit one will be of no avail to another. There is no doubt that suggestive therapy plays an important part in the treatment and successful end-results in certain cases of this condition. The following are some of the methods of therapy successfully employed in the management of nausea and vomiting of pregnancy, not of the severe type.

It is well to examine carefully the upper respiratory tract to eliminate any possible condition which might be conducive to vomiting, such as severe post-nasal drip, pyorrhea alveolaris or hypersensitive posterior pharyngeal wall. If any of the conditions mentioned or others be found, proper treatment should be instituted for their relief. The factor of constipation is important and should be given careful consideration. Replacement of uterine malpositions may be of some value. The treatment of any genital irritation may be beneficial. Some writers report that simple dilatation of the cervix or the introduction of tampons soaked with glycerine into the vagina is sufficient to control the symptoms and results in cessation of the vomiting. The general physical condition of the patient should be carefully determined. Lying in the prone position will give relief to some. The habits of the individual should be known and the patient be instructed as to proper exercise and the hygiene of pregnancy. Excessive coitus may cause the symptoms to increase. The patient should be free from boresome duties as much as possible, such as cooking, dishwashing and the ordinary kitchen routine. Excessive emotional states should be avoided.

The diet is an important factor in the successful treatment of this condition. In general the diet should contain an excess of carbohydrates. The eating of hard candies may be of value. The time of eating should be more frequent and less taken at each meal. The use of dry foods is of value. Also at times good results are obtained by taking no fluids except when some solid food is associated. The patient should be allowed to choose her own diet as far as possible. Food should be attractively prepared and served. Another form of feeding has been advocated and that is to eat before arising in the morning, and to remain in bed at least a half hour after eating. Also food may be placed beside the bed and taken during the night should she awaken. The type of food advocated for this is dry biscuits of some kind. Fluid may be taken in association with the dry food.

Physical therapy offers the exposure to ultra-violet light as a form of therapy for this condition, and favorable results have been reported from its use.

Many patients can be successfully treated without the use of drugs; however, in some it becomes necessary to employ them. The drugs that have been used are very numerous. Sedatives such as bromides, luminal, sodium-luminal, sodium-amytal, all have their place. Caffein citrate gr. 2 three times a day, one-half hour before meals, may be beneficial in some cases. The action of this drug is to increase the secretion of

hydrochloric acid in the stomach, which is diminished in pregnancy. Corpus luteum extract in its various forms may be used.

Perhaps one of the most important steps in the management of the type of case that does not require hospitalization is to gain the utmost confidence of the patient and assure her that if she will absolutely follow your directions her unpleasant symptoms will be cured. The physician has many forms of therapy at his command with which to accomplish his desired results, and by judicious application of his knowledge and his judgment of the individual patient much good can be gained, both to the satisfaction of the patient and himself.

It is a different matter when it comes to treating the patient whose symptoms are severe enough for admission to the hospital, and if severe the case should be hospitalized, as the patient can be more successfully treated in a hospital than at home. Again in this there seems to be some difference of opinion regarding the methods to use. In general there seems to be an agreement as to the use of fluids by rectum, hypodermoclysis or intravenously as the case demands, glucose with or without insulin, sedatives, restriction of food or fluids by mouth and finally abortion should all other measures fail.

In brief the following is the plan of treatment for the patient with a severe case of vomiting admitted to our clinic. Upon admission the patient is put immediately to bed. A complete general physical examination is made, which includes optical fundi examination, which is well to do in all cases of toxemias of pregnancy. Complete laboratory work is done, which includes complete blood, Kahn test, urinalysis, serum bilirubin, blood sugar and CO_2 combining power. The room is darkened and no visitors are allowed. A special nurse is of value. The patient is allowed nothing by mouth, which should be kept clean and the lips soft. The colon is then thoroughly cleansed and rectal fluids started. A solution of 5 per cent glucose in normal saline or Ringer's solution is used. Usually at this time an infusion of normal saline with 5 per cent glucose is given subpectorally. The amount that can be given in this manner is variable. Also glucose is given intravenously. The glucose is used in the form of a 50 per cent solution and is followed by a solution of normal saline or Ringer's solution. The saline should be doubly distilled and fresh. The amount of glucose and fluids intravenously depends upon the degree of dehydration and evidence of intoxication present. In addition to the above mentioned hypodermic, preparations of corpus luteum may be used, also gastric lavage. Sedatives are used as needed. Transfusions may at times be indicated. Feedings are resumed by mouth after a period of twenty-four to thirty-six hours. At first only fluids are given and in teaspoonful doses. Gradually the amount and frequency of the feedings are increased, as the patient is able to tolerate the food. However, there are some patients who will not respond to any type of therapy and their condition grows rapidly worse. Obviously abortion is indicated in this type of case.

The indication for abortion is the rapid or gradual weakening of the patient under suitable treatment. The change for the worse may come on suddenly. Laboratory findings will be of great help in determining the prognosis, but one can not rely entirely on them. Jaundice is of grave import. In general about all one can say is that the physician has to be the judge. No patient should be aborted without consultation.

After abortion has been decided upon, then one has to select the proper method. Of course the methods depend to some degree upon the period of gestation. Whenever possible the method of choice should not require general anesthesia, which is contraindicated in patients as much depleted as are these. The cervix is not a very sensitive organ and will usually stand the insertion of a bougie or even moderate dilatation and removal of uterine contents without anesthesia. Prolonged uterine manipulation especially under general anesthesia takes away the patient's last chance.

An analysis of fifty-one cases of pernicious vomiting of pregnancy admitted to the University Hospital Maternity for treatment revealed the following facts. It must be understood many of these patients were sent to the Maternity after the time when any form of treatment could be of any avail. In a number of cases the uterus was emptied against the best judgment of the attending staff because the patient and family begged something be attempted. In an occasional case the uterus was not emptied properly, since much has been

learned about the avoidance of obstetric shock since 1901, from which year this series dates.

Total number of cases of pernicious vomiting, 51.

Average age of patients, 25.5 years.

Youngest, 18; oldest, 39.

Primiparæ, 27, 52.9 per cent.

Multiparæ, 24, 47.0 per cent.

Although more than half the patients in the Maternity are illegitimately pregnant, it is rather curious that only rarely is pernicious vomiting of pregnancy met with in this class of patients. Of the fifty-one patients, only four were in the illegitimate group.

The average duration of pregnancy at the time of admittance to the hospital was approximately two and one-half months.

The number of days that symptoms had been present prior to admission to the hospital was fifty-three. This fact no doubt will explain the reason for such a high mortality in this series.

Number of therapeutic abortions, 10 (19.6 per cent).

Number of spontaneous abortions, 3 (5.8 per cent).

Number of deaths following therapeutic abortions, 6 (11.7 per cent).

Number of deaths following spontaneous abortions, 0 (0 per cent).

Number of patients with this complication who died unaborted, 2 (3.9 per cent).

Total number of deaths, 8 (15.2 per cent).

CONCLUSIONS

1. Nausea and vomiting of pregnancy or morning sickness should be treated both for the relief of the patient and that the more serious form of the symptom-complex may be avoided.

2. Patients with severe forms of vomiting should be hospitalized at the onset of the complication.

3. Abortion is indicated in a definite proportion of cases and once decided upon it should not be delayed. The method involving the least shock and hemorrhage should be the one of choice.

4. Therapeutic abortion should only under the rarest of circumstances be performed without consultation and not without the complete knowledge of patient and family.

5. An increasing pulse rate shows weakening of the heart muscle and is a danger signal. The mother should be given the benefit of the doubt. If her condition is steadily becoming worse she should be aborted before her condition is so serious that emptying the uterus will be of no avail.

6. The physician's regret is apt to be that he delayed too long, not that fetal life was destroyed.

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SYSTEM OF WEIGHED HIGH CARBOHYDRATE DIETS FOR DIABETES

JAMES J. SHORT, New York, presents in tabular form six weighed high carbohydrate diets for diabetic patients. A summary of the carbohydrate, protein and fat content of each, together with its caloric value, is appended for ready reference. The food amounts are given in multiples of ten in most instances, and amounts of 100 or 200 Gm. are used frequently for the sake of convenience and simplicity. The foods are grouped according to the carbohydrate, protein and fat contents, so that a fairly wide choice of foods can be made without in any way causing a deviation from the accuracy of the diet. This wide latitude of choice is greatly appreciated by the patient. The proteins are listed in multiples of 15 according to Mosenthal's original lists. The fat contents are approximately one and a half times the protein and, in accordance with Sansum's suggestion, the carbohydrate is twice the fat. The caloric values range from 910 to 2,831 calories, and in each diet it happens by coincidence that the caloric value is approximately ten times the carbohydrate content in grams. The approximate percentages of the daily food distribution are also in tabular form. Details of results obtained from the use of these diets are reserved for a future communication. In general, the benefits seen have greatly exceeded expectations. Based on experiences with a considerable number of patients seen during the past two years or longer, where careful comparisons have been possible between these and the former relatively high fat-low carbohydrate diets, it is the author's belief that the higher carbohydrate-fat ratios possess many distinct advantages and will become increasingly popular with specialists in diabetes as time goes on.—*Journal A. M. A.*

POSTNATAL CARE*

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The situation that prompted particular interest in this subject was, first, the amazing number of women partially disabled following childbirth, by frequent or constant backache, bearing down pains, disagreeable discharge and, as popularly expressed, lack of pep; and, secondly, the perennial taunt of the surgeon that every obstetric case is a prospective patient for surgery. It should be our aim to return a mother to her household and social duties as well and active as she was before her first pregnancy. Certainly antenatal and natal care have their important place in this ambitious program, but in this paper I wish particularly to bring out some of the factors in the routine postnatal care of patients, especially those apparently normal.

The postnatal care begins indirectly in the antenatal care and care during delivery.

The problem of whether or not to do a routine episiotomy is always present. Certainly under hospital care where the baby promises to be of normal or larger size a perineotomy reduces the amount of trauma to the perineum and vulva and is much easier to repair. An additional point in favor of this procedure is that injuries to the anterior vaginal wall with associated injury to the vesical sphincter, resulting in only partial urinary control, are eliminated.

The routine episiotomy in home obstetrics introduces another avenue of infection in a questionably aseptic field which I am loath to use under such conditions. Whether or not an episiotomy is done or if a tear occurs a careful coaptation of the tissue should be attempted. Whenever a tear occurs I cannot urge too strongly a very careful examination to determine the extent of the laceration, as tears are often through the mucosa of the vagina and not through the skin on the perineum. This seems axiomatic, but as I have had colleagues, whose judgment is respected, say that they deliver primiparæ of 9-10 pound babies without injury to the birth canal I feel that this bears mention. If there is no assistant present, the use of a perineal retractor is a great help. I find this a particular help in home obstetrics. In fact it was after I used a perineal retractor and determined the full extent of the tears that I was getting in spite of careful methods to avoid them that I began doing episiotomies. To try to repair the perineum of a struggling patient is useless and to try to convince her, at such a time, that it won't hurt is almost as useless, so even in my home obstetrics I have the patient given an anesthetic in order that the repair can be done as exactly as possible. Although our research workers have shown that choloroform causes a degeneration of the parenchymatous organs there is no other anesthetic so convenient, so rapid in its effect or so easily handled in the home; and in a short anesthesia the latter overbalances the former. When multiparæ are cared for in the hospital and where the patient has not been exhausted by labor it is possible to repair the perineum that has been relaxed by previous labors directly after delivery. To be sure, an additional procedure increases the possibility of infection and it must be constantly borne in mind that in all these procedures we have to be much more watchful of our asepsis and antisepsis than at an operative procedure because of the ever present contaminated area, the anus. I cannot urge too strongly detailed watchfulness of technic at this time, for in no other surgical field is it easier to break your technic. Speaking of technic in the homes, I would like to digress a moment and urge coöperation with community agencies that are endeavoring to work with us in improving the service to the puerpera in the homes. It is easy to understand why a general practitioner, after working all day, at two A. M. loses much of his enthusiasm about detail of care which is neither understood nor appreciated by the patient. As in many cities, the Visiting Nurses' Association of Saginaw has recently instituted a maternity service which supplies adequate sterile material, free, for home deliveries and they are planning to have nurses available also. This

*This paper was presented before the Section of Gynecology and Obstetrics at the 110th Annual Meeting of the Michigan State Medical Society, held at Benton Harbor, Sept. 15, 16, 17, 1930.

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is certainly a helping hand in awkward, difficult and oftentimes dangerous situations which under the present industrial conditions we meet. As for the repair itself, the essential point is to bring together the parted levator and fascial edges; the skin and mucous membrane will quite well take care of themselves if the underlying structures are united. As important as a firm perineum is, it is but one factor in the convalescence from labor. A second factor is the reestablishment, after the expulsion of the child, of the intra-abdominal pressure, in order to help maintain the position of the uterus. This can be started a day or two after delivery by having the patient take deep breathing exercises in bed two or three times daily—this not only strengthens the abdominal muscles but increases the oxygenation of the blood, a factor in resistance building, and empties the large pelvic and abdominal veins, thus helping to reduce stasis, and the possibility of embolism. Another aid is the leg exercise—i.e., with the patient lying on her back with her knees stiff, first one and then the other leg is raised to the perpendicular or near perpendicular. After several days of this, both legs are raised at once. The beginning and the extent of this exercise will be governed partially by the extent of the lacerations and repair. This raises the point of how quiet a patient should be in bed. After the second or third day the patient should be rolled over on her abdomen several times daily. After she is up she should be taught the exercise of walking on her hands and feet and while in this position kicking upward and backward. This is not only an exercise of the abdominal muscles but also maintains the position of the uterus, anterior, and drains the pelvic veins, relieving the engorgement of the pelvis. Another exercise contributing to the same end is the knee-chest position, which can be taken on the eighth to tenth day after delivery.

One of nature's methods of causing involutions is by maternal nursing. There seems to be less and less maternal nursing both voluntary and involuntary. For the latter I have no solution, but for the former, which is all too common, a few moments of sincere explanation at some time during the prenatal period will successfully convince most mothers of the value of nursing their offspring.

In the routine postpartum examination we have an opportunity to check up on the general condition of the patient and particularly on the local pelvic condition. In approximately half of the patients one will find a pathological condition consisting of either a retroverted subinvoluted uterus or a red, angry, succulent looking cervix which bleeds on the slightest manipulation. Chronic endocervicitis is always due to bacterial invasion. Not only does the cervical infection cause induration of the broad ligaments with its associated congestion of the pelvic organs, but by an increasing number of men it is considered a pelvic tonsil as a focus of infection. Only those of us who have tried to treat such a cervix with topical applications and tampons can realize the full value of the cautery in treating erosions. Cauterization can be done as early as the sixth week after labor and can be done in the office without anesthesia. After a bivalve speculum has been inserted in the vagina and the mucous discharge wiped out, the cervix is painted with mercurochrome. The ordinary small nasal cautery tip is inserted into the cervix, the current is turned on and the tip is gradually withdrawn, extending the cauterization to the edge of the erosion. This is repeated until there are several lines like the spokes of a wheel extending from the os to the periphery of the erosion. The placing of the cautery lines varies with the shape of the erosion, and the type of lacerations sustained by the cervix. If there are any small cysts in the cervix these should be cauterized also. Although the cervix is almost insensitive to pain the mucous membrane of the vagina is exquisitely sensitive and great care should be exercised not to approach it with the cautery. This treatment is followed by an increased amount of discharge, changing from purulent to watery, for a week or ten days, usually followed by complete healing. Occasionally a second or third application of the cautery is necessary. So effective has this treatment been that in many clinics trachelorrhaphies and other operations for cervical lacerations and endocervicitis have been abandoned.

The last measure which I wish to mention is the use of the pessary. In the tidal wave of surgery that has swept the country in the last decade this valuable instrument has been submerged. Many observers have shown that retroversion of the uterus oc-

curs in from 40 to 50 per cent of postpartums. Exercises help to prevent this and in some cases cure it, but there remains a definite percentage which require a mechanical support and by no nonoperative method can this support be obtained better than with a Hodge or Smith pessary. After replacement of the retroverted uterus the depth of the vagina is measured and the approximate size pessary is selected and introduced. The proper selection and painless introduction of a pessary is an art which can be acquired only by practice. The pessary should not be so large that the finger cannot be passed around it easily nor so long that it impinges the urethra against the symphysis. Too small a pessary will not offer any support. The after-treatment consists of a cleansing douche every day, or every other day, and of an examination, exchanging the pessary after three days, then after two weeks, then six weeks, then every three months. Whether or not the pessary can ever cure retroversions permanently is a question. All of us have records of permanent cures in many cases. Those patients who are not cured obtain relief of their symptoms during the child-bearing period, when we all are reluctant to urge major operative procedures, the results of which may be nullified by subsequent pregnancies. Postnatal care consists of many disjointed details which are easily forgotten or overlooked. For this reason it is well to have a routine established in the hospital which is carried out automatically, making exceptions when necessary.

To sum up, we attempt to return our puerpera to their household and social activities with all the energy and vigor of their youth by careful repair of the birth injuries, by promoting involutions by natural stimulation, i.e., by breast feeding, by reestablishing intra-abdominal pressure by exercising the abdominal muscles, by postural drainage of the vagina and the venous flexes of the pelvis, by thermal cauterization of the infected cervix, by replacing and maintaining in position the retroverted uterus. These are all comparatively simple procedures but require patience and perseverance both on the part of the physician and the patient, but so long as abdominal incisions become infected, so long as laparotomies are frequently followed by adhesions, so long as surgical correction is not unfailingly successful and so long as anesthesia is not without mortality, such persistence and care seem well worth while.

ROENTGEN DIAGNOSIS IN GYNECOLOGY AND OBSTETRICS*

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The use of the X-ray, which has become so important for diagnosis in almost every other branch of medicine and surgery, oddly enough has lagged sorely behind in gynecology and obstetrics. In gynecology this may be accounted for in part by a peculiar conceit of the gynecologist that he has trained his touch to that high degree of accuracy that he requires no outside aid; in part also to the habit of forming judgments on the basis of the patient's complaint and the presence or absence of more or less definite pelvic findings. In obstetrics, the fear of injuring the fetus in utero and the technical difficulties encountered were the chief obstacles to the use of the X-ray.

Precision in gynecologic diagnosis is a quality frequently not attained until laparotomy, and then sometimes deferred until the return of the report of the pathologic laboratory. Improved teaching methods and increased facilities in hospital out-patient clinics tend to enhance the accuracy of clinical diagnosis. However, a history of the case and the bimanual examination are still the chief factors in diagnosis, complemented

*This paper was presented before the Section on Gynecology and Obstetrics at the 110th Annual Meeting of the Michigan State Medical Society held at Benton Harbor, Sept. 15, 16, 17, 1930. The investigative studies were supported by grants from the Otto Baer Fund for Clinical Research and the Adolf Stein Memorial for X-Ray Research.

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as indicated by serologic, bacteriologic and other laboratory tests. The frequency with which incorrect diagnoses are made even by specialists of many years of experience, discovered at the operating table or, later, in the pathologic laboratory, affords sufficient reason for seeking additional diagnostic aids to our ordinary armamentarium. This lack of precision is evidenced by the frequent appearance on operating room schedules of such evasive terms as "exploratory laparotomy," "abdominal section," "gynecologic lap," "pelvic inflammatory," or "pelvic tumor." Such preoperative diagnoses are not acceptable in a Class A hospital. At the Michael Reese Hospital, Chicago, every surgeon is required to write his preoperative diagnosis over his signature on the patient's record before the anesthetic is administered.

Diagnostic errors may be due to insufficient study of cases. The pernicious habit of admitting patients the night before the operation is no doubt also one cause. Crowded operative schedules are partly to blame, as is also a limitation of hospital beds. A far more important cause is the reliance upon a single bimanual examination for gynecologic diagnosis without due regard for a *personally obtained* history. To depend upon the history taken by an intern, especially in gynecological cases, is a serious error. Whatever the causes may be, the fact remains that not only the beginners in gynecology but also experienced clinicians, men of twenty-five to thirty years' experience, are still performing abdominal section without an accurate preoperative diagnosis. These same clinicians who upon laparotomy for fibroids are surprised to find a pregnancy instead, are the very ones who refuse to have recourse to diagnostic roentgenography, when such differentiation is readily and definitely obtainable. There is, moreover, a medico-legal significance to this question which cannot be overlooked, which was emphasized in a former paper on this subject.[1] In the present high state of development of roentgenography, a physician holds himself open to charge of malpractice for serious errors in diagnosis if he fails to avail himself of this source of information and thereby subjects his patient to unnecessary operative interference.

In many instances patients shop from one physician to another because of pelvic disturbance. The varying opinions which they may receive not only tend to confuse the patients, but are also apt to shake their confidence in the physician. Who is to decide which is the correct opinion? The indisputable evidence on an X-ray film in support of one opinion or definitely negating another will prove of great value in restoring the confidence of the patient and will lead directly to the correct management of the case.

For the past eight years I have been interested in the development of roentgen diagnosis in connection with my obstetrical and gynecologic problems, and I have found it indeed a most useful adjuvant. I do not wish to convey the impression that I use the X-ray routinely for diagnosis, but I have used it freely in cases of uncertain diagnosis, in settling differences of opinion, in obtaining precision in diagnosis and establishing a permanent and indisputable record of the pelvic status.

ROENTGEN DIAGNOSIS IN GYNECOLOGY

In gynecology my interest first centered about the Rubin patency test in cases of sterility. This test has proven one of the most striking advances in gynecologic diagnosis of the age, and has been the means of opening new avenues of investigation. This soon led, at the suggestion of Peterson, to the use of the transuterine inflation of the abdomen in cases where the tubes were found permeable and transabdominal inflation in certain other cases, and X-ray of the pelvic viscera with the superinduced pneumoperitoneum. Modifying Peterson's technic by the additional use of the Bucky diaphram, I obtained such satisfactory results that I was encouraged to utilize the method more widely in gynecologic diagnosis. Diagnostic pneumoperitoneum had been used in gynecology sporadically since Orndoff,[2] and Stein and Stewart[3] first introduced it in 1919, but Peterson's studies[4] gave it new impetus; his introduction of the partial knee-chest position, the transuterine route, and the diagnosis of early pregnancy established it as a safe, valuable and practical method of pelvic diagnosis.

In eight years I have used transuterine or transabdominal pneumoperitoneum in over 500 cases without accident or serious complications, and since 1926, when Forestier first demonstrated in this country the use of lipiodol as a contrast medium, I have used

this iodized oil in combination with pneumoperitoneum in over 200 cases. From time to time I have modified and improved my technic, and with the coöperation of Dr. R. A. Arens, roentgenologist at Michael Reese Hospital, have devised suitable instruments[5] and a special radiographic table[6] to facilitate this work, all of which has been published elsewhere. Jung and Schirmer,[7] and Heuser[8] have also employed the two methods (iodized oil and pneumoperitoneum) in combination, with great satisfaction. At the risk of repetition I wish to state the comparative values of these roentgenologic diagnostic methods.

Fig. 1. Lipiodol instillation. Patent Fallopian tubes.

Fig. 2. Lipiodol and pneumoperitoneum. Ovarian cyst visualized by the gas.

With the X-ray after pneumoperitoneum one can visualize all the female pelvic viscera clearly on the roentgen film; the uterus, ovaries, Fallopian tubes, round ligaments and bladder are usually seen, silhouetted on the film. Obviously, any change in size, shape, density or position of these organs, any adhesion to them, or absence of them can be recognized. With the use of lipiodol or any similar radio-opaque liquid, the cavity of the uterus and lumens of the Fallopian tubes can be demonstrated (Fig. 1). This is of value particularly where the question of tubal patency arises, as "spill" of the contrast medium into the peritoneal cavity records tubal patency beyond question and the location of a definite point of obstruction may be accurately shown. By combining these two methods as I have done for the past three years, one is able to obtain the maximum information concerning the pelvic status without open operation[9] (Fig. 2). Of the two methods separately (pneumoperitoneum and iodized oil) by far the more information is obtained with pneumoperitoneum, as most gynecologic diseases produce alterations in the size, shape, density and relationship of the uterus, ovaries and tubes. Much less information is obtained with opaque liquid (lipiodol) alone; the diagnosis of pelvic tumors, cysts and ectopic pregnancy by the latter means I believe to be unreliable. The diagnosis of pregnancy by any intrauterine instrumentation or instillation is dangerous, meddlesome and unnecessary. With pneumoperitoneum, on the other hand, intrauterine pregnancy (as early as five or six weeks) can be differentiated from fibroids, ovarian cysts and tubal pregnancy, as can the various kinds of ovarian and parovarian cysts from each other preoperatively. Ectopic pregnancy has been shown in three of my cases, but a case of ovarian pregnancy was obscured by too dense adhesions. It is surprising, however, how much pelvic pathology can be shown on the roentgenogram in the presence of pelvic adhesions. Peritoneal serous cysts, which are usually not palpable, are usually seen as distinct opaque masses on the film. In obese women and women with rigid, firm abdomens, bimanual palpation is especially difficult; many such

women are sent to the hospital for laparotomy based upon the history of the case, but with indefinite physical findings. Roentgenograms in these cases often reveal that the pelvic viscera are not the cause of the

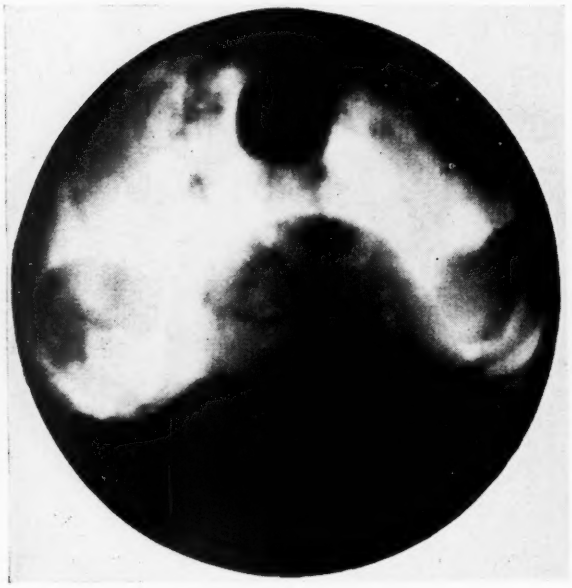

Fig. 3. Transabdominal pneumoperitoneum. Pregnancy six weeks.

patient's distress and are shown to be normal. Thus, by this method needless operations are avoided. The roentgenogram, as a matter of record, may prove of as great value for its negative as for its positive findings.

OBSTETRIC ROENTGENOGRAPHY

Before 1918 the field of obstetric roentgenography was practically unexplored. True, in 1899 Müllerheim[10] had partial success in demonstrating parts of the fetal bony structures, and in 1912 O'Donnell[11] showed a few successful plates in the last trimester of pregnancy. Twins were diagnosed on the film by Judd[12] in 1915. But no great amount of progress was made until Warnekros,[13] working in Bumm's clinic in Berlin, developed a suitable technic for obstetric roentgenography and published his remarkable atlas in 1918. Edling's[14] work was contemporary. In the past decade a more or less general adoption of roentgenologic diagnostic aid has gradually crept into obstetrics. However, when I first showed a series of obstetrical films at the scientific exhibit of the A. M. A. in San Francisco in 1923 they were indeed looked upon as medical curiosities. In fact, there were but few clinics in this country utilizing obstetric roentgenography at that time. I have studied over 1,000 patients during pregnancy roentgenologically, and, by adopting a careful and satisfactory technic developed by Dr. Arens, have never produced demonstrable harm to mother or child by this means. Today every hospital is equipped to take satisfactory roentgenograms, and the use of the X-ray in obstetrics is becoming quite common.

Obstetrical roentgenography may prove of especial value and may be indicated in the following instances:

1. In *early pregnancy* (five to twelve weeks) when immediate diagnosis is desired, or medico-legal issue is at stake, pneumoperitoneum should be used (Fig. 3). I am strongly opposed to the use of lipiodol or any other intrauterine method when pregnancy is present or suspected, as abortion is likely to occur as a result of the instrumentation. On the other hand, no ill effect has been observed after transabdominal pneumoperitoneum in a number of my cases of from five to ten weeks' pregnancy. These were done chiefly for differential diagnosis of intra- and extra-uterine pregnancy. Peterson's sign of broadening of the isthmus shadow and globular enlargement and decreased density of the fundus are characteristic. I have also observed increase in size of the round ligament on the film.

2. For *pregnancy at mid-term* or shortly before (without the use of pneumoperitoneum). Under favorable conditions the fetal bones can be shown on the film as early as thirteen to sixteen weeks,[15] and fairly regularly after twenty weeks. This is of value in differential diagnosis between soft fibroids, cysts and pregnancy, a problem which arises with ample frequency. Although the entire fetal skeleton may not always be demonstrated on the film at this stage of pregnancy, a characteristic shadow of the skull, some fetal long bones, or spine will usually be seen. The films should be made with the patient in the dorsal posture with marked lumbar lordosis.

3. For the determination of *multiple pregnancy* and the relative positions of the fetus. Twin and triplet births have been diagnosed in questionable cases as early as six or seven months, and may usually be accurately shown at term even in the presence of large amounts of liquor. The lateral pos-

ture in addition to the usual dorsal and prone views may prove of value.

4. In cases of *hydramnios,* where multiple pregnancy or *monstrosity* is suspected. Hydrocephalus, anencephalus, and other fetal anomalies have been reported repeatedly.

5. Before cesarean section, to insure the presence of a normally developed fetus. To subject the mother to laparotomy for the safety of her child, and then to deliver a monster is a ghastly error! In one case of apparent fetal dystocia in the maternity service at Michael Reese Hospital, cesarean section was about to be performed when the roentgen film disclosed an anencephalic monster. No operation was made, the abnormal fetus being extracted from below some hours later. In cases of apparent oversize child where section is contemplated, X-ray may reveal two small babies, each of which may easily pass through the birth canal, thus reversing the indication.

6. For *large* or *post-mature fetus,* the roentgenogram will show the degree of bone development, the cranial vault being especially ossified, the relative size of the fetal skeleton, and the pelvis in relation to the presenting part, so that its adaptability may be estimated.

7. *Mal-presentations* and positions such as breech, transverse, face (Fig. 4), and brow can be studied on the film to determine the degree of flexion or deflexion of the head, trunk and extremities, the position of the fetal poles, etc. Such information is of value in deciding upon the technic for management.

8. The *bony pelvis* may be studied. Stereoroentgenograms give a valuable perspective in estimating the relative contraction or deformity of the pelvis. Roentgen pelvimetry has also been developed to a degree of great accuracy by Thoms,[16] Jungmann[17] and others.

9. Spaulding[18] and Horner[19] separately described an intrauterine sign of *fetal death,* namely, overlapping of the fetal cranial bones and apparent shrinkage of the skull. From personal studies[20] I would warn against accepting such criteria in deciding upon the management of labor. I have shown similar roentgenographic evidence as well as apparent fetal collapse and acute spinal angulation in patients who subsequently delivered live babies. Other clinical signs of fetal death in utero are of greater significance than the roentgenographic evidence.

10. In rare cases the *placental shadow* will also be seen. In three cases of placenta previa I have found a corresponding shadow

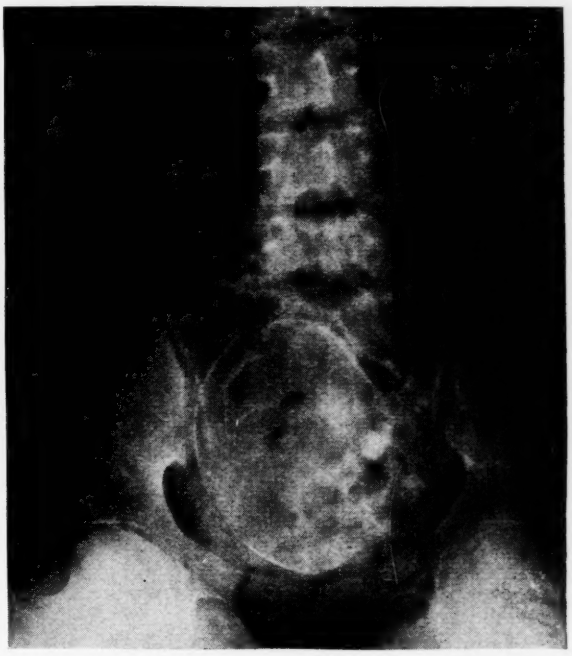

Fig. 4. Face presentation. First stage of labor.

on the roentgen film. This may prove to be of value in differentiating concealed from unavoidable hemorrhage.

11. For *medico-legal* evidence of the fetus in utero, both in establishing a definite diagnosis in cases of illegitimacy, and in differential diagnosis of pregnancy from other pelvic tumors.

12. Finally, in the *teaching of obstetrics,* the roentgen film is of material value in visualizing the case for student instruction.

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ATROPHIC VULVITIS AND CARCINOMA OF THE VULVA*

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DETROIT

Atrophic vulvitis and carcinoma of the vulva are definite pathological entities. They develop after diminution or cessation of the activity of the ovaries due to disease, removal, or the menopause. We do not intend to enter into any discussion whether kraurosis vulva or leukoplakic vulvitis is the proper term, but have included them both under the generalized heading of atrophic vulvitis. We do wish to state that in approximately 50 per cent of cases showing the above changes cancer develops. There is probably no other region in the body in which cancer is preceded, for so long a time, by a precancerous condition as in the vulva. Carcinoma of the vulva occurs in one out of twenty-five cases of carcinoma of the pelvic viscera. If we can prevent or cure most of these we will have accomplished something worth while. It is therefore the object of this paper to call attention to this condition.

The external genitalia of women undergo extensive changes during the course of their reproductive life and the anatomical considerations vary in accordance with the age of the individual. In girlhood before puberty there is a prominence of the labial folds, a readily visible vaginal introitus, an absence of pubic hair and a smooth white dry skin. In adult women the mons veneris becomes prominent, there is growth of the pubic hair and the introitus, which now is covered by well developed labia, is characterized by a moist pinkish colored surface. In women, who have passed the menopause, there is some variation in the appearance of the vulva, depending upon whether or not the woman has had children. Whether or not childbirth has occurred there is considerable atrophy of the vulva, especially during the first few years after the menopause, and continuing in some degree throughout the succeeding years, so that in elderly women there is a similarity in the appearance of the vulva to that of the young girl before the onset of puberty. There are some differences, however, in the texture and color of the skin, which at this time may be wrinkled over the labia majora, and have a smooth velvety appearance over the labia minora. The skin of the perineum is dry and frequently cracks as a result of the least trauma. It also has lost all of its resistance to infection and is therefore easily irritated by any discharge. If one considers that this is a physiological process, then, in certain cases, it is often difficult to differentiate it from the pathological process first described by Brisky in 1885 which he called kraurosis vulvæ.

The etiological factor responsible for conversion of the physiological atrophy to the pathological process apparently belongs to the endocrine system, inasmuch as the change always follows diminution of ovarian activity. It probably is due to an imbalance of the remaining active glands.

The average age of cases reported by Taussig was 49, with the oldest being 74, and the youngest 26. Only rarely does a vulvitis occur in negroes, which fact is accounted for by the large amount of elastic tissue present in the skin. This is repeatedly demonstrated by the infrequency of perineal tears during childbirth. There is no relation to pregnancy inasmuch as it occurs just as frequently in those who have had children as those who have not.

The most striking symptom of atrophic vulvitis is a pruritus. This is invariably present for a long time. Since it is worse at night, these patients frequently suffer from insomnia, and consequently are nervous wrecks. Burning on urination occurs when any excoriation of the skin or mucosa is present. If the process has involved the skin about the anus, defecation is painful. There is usually a vaginal discharge. Dyspareunia is present in the advanced cases. The course of the disease is a slowly progressing one, although some cases remain stationary for years. The appearance of the vulva, when that type of disease usually designated as kraurosis exists, depends upon the stage of the process. The area affected has a pale white or grayish white appearance. The labial and preputial

*This paper was presented before the Section on Gynecology and Obstetrics at the 110th Annual Meeting of the Michigan State Medical Society held at Benton Harbor, Sept. 15, 16, 17, 1930.

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folds are obliterated and flattened. The skin may be smooth or wrinkled and there may be small or larger raised areas. The integument is tough, leathery, and dry. Hairs are almost completely absent. Scratch marks

Fig. 1. Q. T., No. 76175, age 45. Onset with pruritus vulva immediately after a bilateral oöphorectomy. Rapid atrophy of vulva with thickening of the skin. Numerous fissures soon developed. Two years after onset had leukoplakic areas. Operation advised but refused. Definitely hypothyroid. Symptoms and condition improved on thyroid medication and local treatments. Typical atrophic vulvitis.

in different stages of healing are always present. Microscopically, the squamous epithelium is thinner than normal, its papillæ being short and thin, or completely flattened out. The corium is very dense, elastic fibers are absent, gland and hair follicles are wanting, blood capillaries are sparse and throughout there is considerable round cell infiltration. One is then able to account for the gross appearance—the whiteness being due to the dense anemic corium, the toughness and leathery consistency to the absence of elastic fibers, and dense corium which, in turn, accounts for the loss of glands, hair follicles, and dryness of the surface.

The microscopical picture of that type of vulvitis termed as leukoplakic vulvitis shows a greatly hypertrophied and keratinized squamous epithelium. The papillæ are larger and thicker than normal, and reach well into the corium. It appears grossly on the vulva in the form of raised white scaling patches, or, if duffuse, like meal dust. The whiteness is more intense than in kraurosis. The corium is denser than normal, but less so than in kraurosis, the blood capillaries are few in number, glands and hair follicles

Fig. 2. M. B., No. 61264, age 58. Onset seven months before admission with pruritus vulvæ, burning and soreness. Rapid progress. Bloody discharge for three weeks. Involvement of inguinal lymph glands with edema of leg for two weeks. Examination: Palpable glands in right groin. Ulceration of both labia with marked induration, marked atrophy of vulva, white and unelastic. Borderline case. Excision of vulva and resection of left inguinal glands. Progress rapidly downward—death in four months.

are sparse and atrophied, elastic tissue is decreased and there is marked round cell infiltration. The only essential difference then between kraurosis and leukoplakia is in the greater activity of the squamous epithelium in the latter, which factor has an important bearing on cancer. Some authors feel that an atrophic vulvitis terminates in either kraurosis vulva or in a leukoplakic vulvitis and from the latter cancer develops. Leukoplakic areas are always found in sections of cancer of the vulva developing on an old vulvitis if a large enough area is sectioned.

Carcinoma of the vulva varies in form depending on the point of origin of the tumor, whether epidermis, clitoris, vestibule, or Bartholin glands.

The epidermal form is by far the most common and occurs in the labial, perineal or preputial skin. This type is, in nearly every case, associated with vulvitis.

Carcinoma of the clitoris is rare. It begins directly in the glands and is very malignant. The epidermal type, starting in the

preputial folds, is frequently mistaken for that starting in the clitoris, but resembles that of carcinoma in the labia in all particulars.

Vestibular types often develop in old

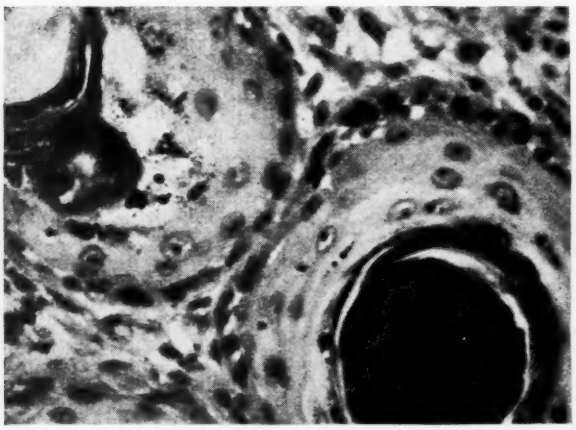

Fig. 3. Sections from Case 61264 show the tumor composed of larger and smaller masses of squamous epithelium which are well differentiated and whose centers form typical cornified tissue. Mitotic figures are present.

syphilitic ulcers. They are also very malignant and occur in relatively young persons.

Those starting in Bartholin glands may be either squamous or adenomatous and usually follow a chronic Bartholinitis.

Carcinoma of the vulva, regardless of type or location, spreads in a similar manner, first to the superficial inguinal and femoral glands, then to those glands just beyond the inguinal canal, and finally to those along the iliac vessels and aorta.

The symptoms and course of carcinoma of the vulva need no special discussion. Pruritus is always present. The ulcer produces a feeling of soreness with burning in the wound after urination. A bloody discharge is usually present, although there never is much bleeding. In the advanced cases there may be considerable pain radiating down the legs. Metastasis to the local tributary glands is relatively early, while that to the distant glands is usually late.

The treatment of the vulvitis depends on the stage of development it is in. In the early period, when the patient is complaining of pruritus, burning on urination, dyspareunia, etc., the treatment consists in stopping any vaginal discharge, or improving drainage, if there is an obstruction, in order to prevent the normal secretion from becoming stagnated and changing chemically. Any external sources of irritation present, such as parasites, condylomas, furuncules, or chemical irritants should be removed. The skin should be protected by some type of ointment. Any evident disturbance in the endocrine gland system should be corrected with special reference being paid to the thyroid. The treatment in those cases where

Fig. 4. M. P., No. 15099, age 39. Onset four years previous, with pruritus vulva followed by nodule formation, then ulceration. Punched-out ulcer on right labia. Marked involvement of left labia extending back into perineal body and filling the vagina. Inoperable. Biopsy and X-ray therapy.

definite skin changes have taken place is surgical. Operation consists in exercising any localized area, or, if the condition is widespread, a complete vulvectomy.

In the treatment of carcinoma of the vulva, Taussig states that radium is contraindicated except as palliative treatment in the inoperable cases. Graves and Smith express the same opinion. A report of the five-year end-results in irradiation of carcinoma of the vagina, vulva, clitoris, and labia from the State Institute for the Study of Malignant Diseases, at Buffalo, New York, concluded that the treatment of carcinoma of the vulva, clitoris, and labia should be radical by means of coagulation and radiation.

Taussig considers all the cases without palpable gland metastasis and most of those in which the ulcer is not too large or too deeply infiltrated and with only small glandular metastasis as operable. In these cases a complete vulvectomy with resection of both inguinal regions is done. Care must be taken that all of the leukoplakic skin is excised or a local recurrence in this affected

skin is very likely to occur. In those cases where only palliative treatment can be done, local excision of the ulcer followed by massive doses of radium or X-ray therapy is most satisfactory.

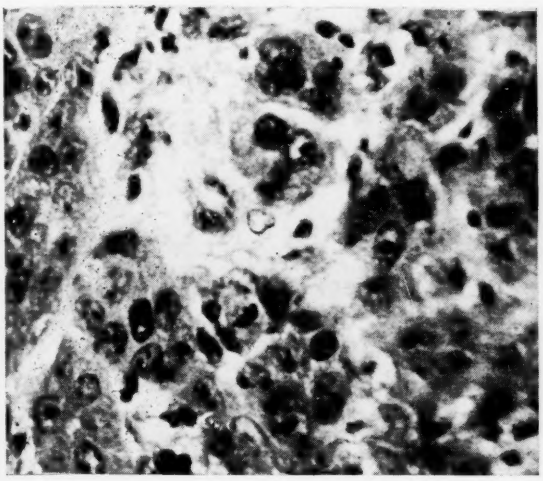

Fig. 5. Section from Case 15099. Large masses and irregular columns of epithelial cells with no differentiation. Individual cells vary in size, shape, and staining qualities. Metalic figures are abundant.

The prognosis in the cases with an atrophic vulvitis, where a complete excision of the affected area is accomplished, is good.

The prognosis in carcinoma of the vulva, if operated upon early and completely, is good. Taussig reports a series of eleven cases in which after five years 81.5 per cent were alive. Although this is a relatively small series it shows what can be done if the lesions are recognized early enough.

The gynecological department of the Henry Ford Hospital now has a series of nine cases. The average age of these patients when first seen was fifty-seven. The average duration of symptoms of the carcinoma was thirteen months. Five of the cases were inoperable and of these, three are dead, the fourth was only a recent case, and the fifth one could not be followed. Of the remaining four, one had an associated carcinoma of the breast, whose general condition would not warrant a radical operation and who is undoubtedly dead now from the carcinoma of the breast. This patient had only a local excision of the carcinoma of the vulva. The second case had a local excision of the carcinoma with a recurrence in the inguinal glands two and one half years later. These were resected one year ago and up until this time there have been no further recurrences. The third case was only recent, and was sent in by a surgeon for radium treatment. Under Taussig's classification this case was on the borderline of operability, since she had a large ulcer and definite metastasis to both inguinal regions. The last case had only a local excision with two radium treatments. This patient never returned to the Clinic and could not be followed. So, out of eight we have only one case living that might possibly be considered a cure, which again emphasizes the point that it is necessary for these patients to have treatment early. Eight of these cases developed in patients who had had an atrophic vulvitis from a few years to twenty years. The ninth, on an old syphilitic ulcer.

Five of the nine cases, according to Broder's classification, were Type I., *i.e.*, the cells were well differentiated with marked pearl formation, well formed pavement epithelium and very few mitotic figures. One belonged to Type II, in which there were fewer pearls and more mitotic figures. One was Type III, where there were no pearl formations but cells grouped in medullary nests, no pavement cells, and large numbers of mitotic cells. Two of the cases were not sectioned.

CONCLUSIONS

Pruritus vulvæ after the menopause should be carefully studied and kept under close observation.

In an atrophic vulvitis where there are definite skin changes a wide excision of all affected areas should be done.

Carcinoma of the vulva is best treated by a vulvectomy and resection of the lymphatic glands in both inguinal regions. Radium and X-rays should be used only in the inoperable cases as palliative treatment.

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THE RELATION OF PELVIC INCLINATION, LUMBAR INDEX, AND POSTURE TO OBSTETRICS*

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DETROIT

In the past a great deal has been written on the relation of pelvic inclination to the length of labor while the lumbar index has been used considerably during recent years by gynecologists in solving such problems as backache and dysmenorrhea. In our search through the literature, we found much had been written about the lumbar index in non-pregnant individuals but nothing in regard to the relation of the lumbar index and pelvic inclination to the symptoms occuring during pregnancy or the progress of labor.

We have been interested in the following problems:

(1) The relation of pelvic inclination to the length of labor.

(2) The effect of poor posture on the postpartum complaints.

(3) The existence of congenital type retroversion following delivery and its relation to utero-replacement.

The patients used in this study were from the University of Iowa Hospital, Iowa City, Iowa. Two hundred and fifty pregnant women were measured before and after delivery. Silhouetteographs were also taken to check results.

By means of the kleiseometer, an instrument invented in Germany and first used in this country by Hugo Ehrenfest, it is possible to measure accurately the pelvic inclination. This instrument offers a simple means of measuring in a reliable manner the inclination of the internal conjugate to the horizon when the patient is standing. The patient is placed in the so-called position of Meyer, both large toes and heels are held in close proximity. The two knobs on the instrument are brought in contact with the two end points of the external conjugate, then the disc is rotated until the spirit level indicates horizontal. If we now bring the instrument to any angle with the horizon we can readily measure the angle by turning the disc. The pointer shows the angle formed by the external conjugate and the horizon.

The technic used in measuring the lumbar index is as follows: Patient with back exposed assumes a natural standing attitude. A yard stick is held vertically in contact with the most prominent processes of the dorsal and sacral curvatures. The distance in millimeters from the deepest point of the lumbar curve to the inner edge of the ruler is used as an index of the degree of lumbar curvature.

In non-pregnant women a definite standard has been agreed upon for the lumbar index. Any readings between 30 and 40 are considered normal while any reading over 40 or under 25 is considered abnormal. In this series the average before delivery was 49½ while after delivery it was 37, which shows that there is an increase in the lumbar curve during the postural readjustments incident to late pregnancy. In the majority of cases, the lumbar index readings were in the low 40's and there were fewer extremely high or low indexes recorded than in postpartum or in nonpregnant women. During pregnancy with the gradual increase in the size of the abdomen, the center of gravity is thrown forward and the lumbar curve is increasingly flattened to maintain equilibrium. This variation is not outside the normal range. If the above explanation is correct, the pelvic inclination should be reversed. Readings taken before delivery averaged 42 while after delivery the average was 49. These readings show that there is about a ten point difference between readings of the lumbar index and pelvic inclination.

The average length of labor in all primipara was 17 hours and 58 minutes, while in the cases with high pelvic inclinations it was 20 hours and 20 minutes. Although it is impossible to formulate a definite relationship between pelvic inclination and the length of labor, it seems from this small series that the greater the inclination the longer the labor. When the inclination is high, the force of the uterine contractions is not applied directly down into the birth canal but is partly dissipated against the

*This paper was presented before the Section on Gynecology and Obstetrics at the 110th Annual Meeting of the Michigan State Medical Society held at Benton Harbor, Sept. 15, 16, 17, 1930.

pelvis; so that late engagements and relatively long labors are the rule.

In considering postpartum retroversions, the lumbar index is of considerable practical value. There were fifty-one postpartum retroversions in this series, approximately 20 per cent. This is about the usual figure for postpartum retroversions. Of this number, fifteen, or about one-fourth of all the retroversions, were of the congenital type—that is, having a lumbar index of 25 or under. A lumbar index of 30 mm. marks the minimum compatible with normal anteversion. Below 25 mm., congenital retroversion may be diagnosed in nearly every case regardless of multiparity and other complicating factors. A uterus congenitally retroverted before conception will invariably resume its retroverted position after delivery. Patients with congenital retroversions will not be cured of their symptoms by mere replacement of the uterus. Over a hundred methods for the correction of utero-displacement are available, but notwithstanding faultless uterine poise these patients continue to suffer as before operation. In seeking to establish such a constant causative factor, it is necessary to recognize that the malposition does not represent simply a congenital retroversion but a congenital retroversion of the entire pelvis with resultant compensatory dystocia of the contents.

Drs. Dickinson, Miller and others have recognized posture as a very important gynecological factor and I wish to point out its relation to pregnancy, which is an extremely frequent cause of abnormal postural development. As the uterus increases in size the abdominal muscles become stretched and thinned out. With the conclusion of labor the abdominal contents suddenly are reduced. The abdominal wall at times, however, regains its tone extremely slowly. When after ten to fourteen days the patient assumes an upright posture, the abdominal wall is still relaxed, allowing the abdominal contents to prolapse into the lower abdomen and pelvis. The upper abdomen becomes flat, the chest begins to droop and the beginning stages of poor posture are established.

Static backache is about two and one-half times as frequent in the multiparous as in the primiparous women. This condition is best prevented by a series of graded exercises starting soon after the patient is delivered. We start them after 48 hours with head raising exercises and then about the eighth day have them assume the knee-chest position for five minutes night and morning. In this series, 160, or about two-thirds, complained of some degree of backache, while one-half of these had the severe type. The patients with above average lumbar index and pelvic inclination had severe backache more frequently than the others. This type of backache during pregnancy is usually best relieved with a well fitting maternity corset, and after delivery by a sacro-iliac belt.

It was impossible to gather data on the relation of pelvic inclination to perineal lacerations in primiparæ, since the variation in the bisischial diameter, performing epsiotomies, etc., complicate this problem. It does seem logical, however, that an increase in the pelvic inclination should prolong the second stage of labor by preventing complete flexion of the descending head. Delayed engagement of the head in primiparæ with normal pelvis is probably due to high pelvic inclination. There were twice as many operative deliveries in those women with a pelvic inclination above 42 as in those under this figure. The position of the fetus in utero was not markedly altered by the pelvic inclination although there was a tendency to posterior position in those with above average inclinations. The only case of transverse position occurred with a pelvic inclination really delays parturition. The

It would seem that measurement of pelvic inclination with the kleiseometer is more accurate than measurement of the lumbar index and as more work is performed with this instrument it will probably replace the lumbar index.

CONCLUSION

There are, to be sure, many factors that affect the length of labor other than pelvic inclination but it does seem as if a high inclination really delays parturition. The lumbar index is of value in the study of postpartum retroversions since it helps differentiate the congenital type, operative correction of which does not give the patient relief from her symptoms.

Physical education has in a general way pointed out the relationship between posture and various pelvic symptoms. All pregnant women have a tendency to develop poor posture following delivery and should be given a series of exercises to prevent this condition from occurring.

TRICHOMONAS VAGINALIS VAGINITIS*

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DETROIT

The literature on trichomonas vaginalis dates back to 1837, when Donné first described this organism, which was classified among the flagellated protozoa. A great many of the earlier investigators were acquainted with this organism but attributed very little significance to its presence in the vagina, and did not consider it an etiological factor in causing any symptoms. This failure to look upon it as a causative factor in producing symptoms was doubtless due to the fact that the trichomonas vaginalis was so frequently found in patients who presented no symptoms. While Donné found this organism only in patients who showed pathologic discharge, and attributed the discharge to this organism, others considered that its presence was mere coincidence, and believed the organism to be harmless. Among these latter were Neumann, Mayer and Wolfring. On the other hand, Arnold and Marchand, while considering this parasite to be harmless, believed that it existed only on pathologic mucous membrane. Our present knowledge of this condition is based on the work of Hoehne, whose report was published in 1916.

During the last two years interest in this subject in this country was stimulated by the writings of Greenhill and Davis, the latter of these having been successful in cultivating the organism in the laboratory. General knowledge and interest has grown tremendously during these last two years.

The trichomonas vaginalis is a flagellated protozoa. It has probably been overlooked frequently because its presence is not readily detected in the stained smear. It is best seen in the fresh unstained specimen. It can be readily seen in hanging-drop preparations and equally well between slide and cover glass when a drop of vaginal secretion is diluted with normal saline solution. A high power objective is necessary for this examination, and the ordinary oil immersion objective is well suited to this purpose. Under the microscope the trichomonas is seen as an oval or ovoid organism, about two or three times the size of a white blood cell, and considerably smaller than the ordinary epithelial cell found in the vaginal secretion. The trichomonas is almost transparent and may be entirely invisible if too much light is allowed to shine through the slide. At one end of the ovoid organism are flagella, two, three, or four in number. These can be seen to be in motion in the fresh specimen. Some of the organisms show a fibril along one side—the so-called undulating membrane. These organisms may be observed almost at rest with only the flagella in motion, or the organism may be included in a mass of white blood cells, and the whole mass may be somewhat in motion from the activity of the flagella. Then again the trichomonas may show marked activity and move around so rapidly that it may be difficult to follow it in the microscopic field. These organisms may remain active on the slide for a long time and on several occasions a slide or hanging-drop has shown motile organisms for several hours.

The predominant symptom in trichomonas vaginalis vaginitis is discharge. This is usually very profuse, and of a pale nile green color, and has a foamy or bubbly appearance. After examination with the speculum the withdrawn speculum usually scoops out a large amount of the discharge, and the specimen to be examined can be conveniently taken from this. The introitus and vaginal mucosa is in many cases very much irritated and reddened and often bleeds on touch. The cervix often shows reddened areas and is sometimes described as the "strawberry" cervix. The vaginal mucosa is often extremely tender and dyspareunia is a resulting symptom. In marked cases the excoriation of the external genitals may also be extreme so as to make walking a painful exercise.

The cases one discovers in one's office practice are usually cases with long standing discharge which has resisted all treatment or has persisted or recurred in spite of

*Presented at the 110th Annual Meeting of the Michigan State Medical Society, held at Benton Harbor, Michigan, September 15, 16, and 17, 1930.

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treatment. In some cases operations, such as the Sturmdorf operation, have been performed without a clearing up of the discharge. We have personally run across several such patients. We are now immediately suspicious of trichomonas infection when a patient's history reveals a dyspareunia coming on after several years of normal marital life. We are likewise suspicious of this infection whenever a patient reports treating with several physicians and obtaining no relief. Since having become cognizant of the occurrence of this infection we have recalled a few patients whom we had ourselves treated unsuccessfully for discharge, and in each of these patients we were able to demonstrate the trichomonas, and were able to relieve the patient where previously we had failed.

This condition can apparently occur at all ages, as the condition has been found before puberty and also after the menopause. It is found in virgins as well as in married women. It is found during pregnancy and probably adds to the morbidity of the puerperium. It is not a venereal disease, and in cases studied by Davis no similar infection was found in any of the husbands of these patients. Presumably the parasites can originate in the intestinal canal and be transferred to the genital tract either by carelessness at toilet, or perhaps the infection occurs just because of the close proximity of the anus to the genitals.

The treatment of trichomonas vaginalis vaginitis is far from being standardized. A variety of treatments are recommended and each writer has his personal variations as to treatment. One principle recognized by all is that the infection is persistent, and unless treatment is prolonged and thorough, recurrences are very likely. It is possible that recurrences are due not so much to insufficient treatment as due to the failure to eliminate the primary source of the infection. Since recurrences seem to come with menstruation some writers advise continuation of treatment during menstruation. The condition should be checked up from time to time during treatment by examination of the discharge for trichomonas, and local treatment should not be discontinued until negative slides are obtained at three or four successive examinations.

After experimenting with several types and varieties of treatment we have adopted more or less of a routine treatment which in our hands has given the best results.

The prophylactic treatment consists in instructing the patient to avoid contamination of the vagina from the anus by discussing with her the method of cleansing the anus after defecation. Care should be taken to avoid a sweep from the anus towards the vagina.

The local vaginal treatment consists in scrubbing the vagina thoroughly with pledgets of cotton soaked in tincture of green soap. Every part of the vagina must be scrubbed rather vigorously and all folds of mucosa stretched out and scrubbed. We prefer to use a bivalve speculum for the treatment, rotating the speculum on the axis of the vagina so as to successively reach all parts of the vaginal wall. The pledgets of cotton are held in a forceps and thus the deeper parts of the vagina can be easily reached. During the first treatments bleeding is often the result of this scrubbing, and some authors even advise scrubbing until the mucosa bleeds. The cervix is likewise scrubbed with green soap. After a thorough and vigorous scrubbing the vaginal mucosa is wiped dry with cotton and about an ounce of some glycerine solution is poured into the vagina through the speculum. A dry tampon is then inserted into the vaginal orifice to prevent the solution from escaping from the vagina. The tampon is allowed to remain in the vagina and the patient is instructed to remove it the following morning. This treatment is given twice a week. Since the external genitals may also be infected with the organism the patient is instructed to give a similar treatment to the vulva and external parts. She is advised to wash the vulva with a soapy lather twice a day, and to scrub it vigorously. After washing off the soap, she bathes the external genitals with a 50 per cent solution of glycerine.

After discontinuing the local treatment the patient is advised the daily use of a lactic acid douche (1-500). This is made up by using ℥ii of the U. S. P. lactic acid solution in two quarts water. During the period that local treatment is being given, the patient may also use this douche on days when no treatment is given. This douche is continued for two or three months after discontinuing local treatment.

In virgins and small children the treat-

ment is not so satisfactory because the scrubbing must be omitted. In these cases we use a 4 per cent solution of mercurochrome and rub as vigorously as possible with applicators and cotton.

We believe the recorded frequency of this infection will increase with more general and diligent search for the organism in the fresh specimen. The condition should be suspected in all cases where the discharge has resisted treatment. A discharge that causes unusual excoriation should also suggest this condition to the physician. And finally, the development of dyspareunia in a woman who had previously lived a normal marital life should at once lead to a search for the trichomonas vaginalis.

1807 David Whitney Building.

DERMOID CYSTS OF THE OVARY*

A BRIEF STUDY OF FIFTY CASES

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In 35,000 gynecological cases examined and recorded in the Department of Obstetrics and Gynecology of the University of Michigan Hospital there were fifty instances of dermoid cysts of the ovary, in each case confirmed by microscopic examination. These cases are reviewed with the purpose of demonstrating if possible the physiological effects produced by such growths, and their surgical importance. While this series is not as large as some reported in the literature, it is large enough to permit some conclusions to be drawn.

The classification and nomenclature of dermoid cysts has long been a matter of argument. The modern view places the dermoids and teratomata in one group, called teratomata, and to conform to this view one should speak of cystic and solid teratomata rather than dermoid cysts and teratomata. Popular scientific usage, however, persists in designating the cystic teratomata as dermoid cysts and we will conform to that usage.

The origin of these interesting tumors is still more a debatable question. While many theories have been advanced, none has been accepted by all embryologists, and the clinician can only indulge in conjectures. The cases under consideration seem to prove nothing as to the etiology of such new growths. As studies in pathology the dermoid cysts always present weird combinations of embryonic structures of chief interest as museum specimens. Two are seldom alike, and no effort will be made to list the variations, as they all have probably been duplicated numberless times.

AGE INCIDENCE

Resting in such close association with one of the most important endocrine organs one might expect serious physiological disturbances to accompany the growth of dermoid cysts of the ovary. Conversely, as the ovary passes through its various stages of activity from birth to senescence one might expect to find the structures embraced in the tumor stimulated by the physiological changes of the gonadal tissue and thus the incidence of dermoid cysts to be more frequently discovered during the period of reproductive activity. The age distribution by decades of the fifty cases appears in Table I.

TABLE I. AGE INCIDENCE BY DECADES

Decade	No. of cases
1–10 years	0
11–20 years	3
21–30 years	16
31–40 years	14
41–50 years	9
51–60 years	8
Total	50

It will be seen that no dermoids appeared in the first decade, although such have been reported. Thirty-nine (78 per

*From the Department of Obstetrics and Gynecology, University of Michigan. This paper was presented before the Section on Gynecology and Obstetrics at the 110th Annual Meeting of the Michigan State Medical Society, held at Benton Harbor, Sept. 15, 16, 17, 1930.

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cent) patients were operated upon between the ages of twenty-one and fifty, which roughly corresponds to the period of greatest activity of the ovarian tissue. Eight (16 per cent) occurred during the usual period of sexual decadence, which might repudiate the view that dermoids are influenced by the stimulation of the active ovary, but one cannot help but conclude that there is some apparent inter-relationship existing between the period of greatest glandular activity and the growth of the tumor.

MENSTRUATION

So much for the effect of the physiology of the gland upon the tumor; how does the tumor alter the physiology of the endocrine structures so intimately associated with it? Menstrual abnormalities might be expected to be the best index of altered physiology. A review of the cases revealed the menses to be seldom affected, and usually concomitant pathology was responsible for existing changes. In thirty-nine cases (78 per cent) the menses were established at the time of operation, in ten cases (20 per cent) the menses had ceased at the time of operation, and one patient, a thirteen year old girl (2 per cent), apparently had not menstruated.

It is often difficult to evaluate what constitutes a normal menstruation in a group because of the wide individual variations which cannot be considered abnormal for any one person. The cases as regards menstruation are shown in Table II.

TABLE II. CHARACTER OF MENSTRUAL PERIOD

	No. of Cases	Per cent
No menstrual history	1	2
Usually irregular menses	1	2
Regular menses but unusually painful	2	4
Normal menses	32	64
Abnormal menses	14	28

In one (2 per cent) the menses were not established. One patient (2 per cent) had periods which were irregular and scanty, of the hypoglandular type. Two women (4 per cent) reported regular periods but accompanied by pain of such unusual severity that they must be considered as abnormal. Thirty-two (64 per cent) reported normal and fourteen (28 per cent) had distinctly abnormal menstrual phenomena.

In the fourteen instances of disturbed catamenia there was found at the time of operation pathology which explained the deviation, with the exception of one patient who was found to be pregnant at the time of operation and who subsequently aborted. The other thirteen had the following conditions present:

Carcinoma of the fundus	3
Carcinoma of the cervix	2
Uterine fibroid	5
Dermoid with twisted pedicle	1
Dermoid of ovary with cyst of other ovary	3

Thirty-two (64 per cent) of the series had what must be considered within wide limits a normal physiological ovarian function as far as the menses can be used as an index, which would seem to indicate that dermoids alone have little tendency to disturb the menses, the frequently found 14 (28 per cent) departures being due to associated pathology.

FECUNDITY

Along with menstruation, fecundity gives an excellent indication of functional deviation. Pathology of the gonadal structures is apt to be shown by sterility. It was very interesting to study the series of cases with this point in mind, but it was found the reproductive function was comparatively free from interference. This is probably explained, as will be shown later, by the fact that dermoids of the ovary are rarely bilateral. Of the fifty cases in the group, nine occurred in unmarried women. Of the remaining forty-one only seven had never borne children. The absence of children in the seven cases was due to the following:

Pelvic tuberculosis	1
Salpingitis	1
Uterine fibroid	1
Bilateral dermoids of the ovary	1
Cause unknown	1
Recent marriage (3 weeks before operation)	1
Pregnancy followed operation	1

The remaining thirty-four patients reported one hundred fifteen full term pregnancies and twenty-five abortions. Only three of the thirty-four had never had full term pregnancies, two had one abortion each, and one had had two abortions. Pregnancies varied from one to nine, the average being 3.3 in the thirty-four. From this it would seem that sterility is not the rule in women who develop cystic teratomata of one ovary.

Laterality.—While many cases of bilateral dermoid cysts have been reported this was found only four times (8 per cent) in the series. Among the remaining forty-six patients there were several instances of small

cysts of the opposite ovary which were found at the time of operation but which were not dermoids upon microscopic examination. Infrequently, apparently, are dermoids found bilaterally.

SURGICAL IMPORTANCE

The presence of a dermoid cyst of the ovary may not materially affect certain body functions, but eventually as a result of their increased size or other complications they become of great surgical importance, presenting many difficult diagnostic problems. Usually the presence of an abdominal tumor attracts the attention of the patient.

SYMPTOMATOLOGY

Dermoid cysts of the ovary do not present any characteristic symptoms not common to other pelvic tumors. The usual symptomatology of pelvic tumors was found in the group of cases under discussion, swelling of the abdomen being perhaps the most common symptom, this being found in eight cases (16 per cent). In five (10 per cent) instances the attention of the patient was attracted by a painful tumor. Lower abdominal pain was very prominent ten times (20 per cent). Unusual vaginal discharge occurred in four patients (8 per cent). Backache, nausea, vomiting, frequency of urination, sensation of weight in pelvis and constipation were frequently found, but without characteristic regularity. Symptoms associated with pressure or the train of events following torsion of the pedicle were perhaps most common, but these are not at all characteristic of dermoids alone. These symptoms are important from a differential diagnostic standpoint but the diagnosis of the type of tumor is usually made during operation or later in the laboratory.

MALIGNANT DEGENERATION

In the differential diagnosis of any tumor the possibility of malignancy plays an important part. Malignant degeneration of dermoid ovarian cysts has been previously reported. Among the cases under observation one case was found upon microscopic examination to contain medullary squamous-celled carcinoma without extension beyond the tissue removed or elsewhere in the abdomen or pelvis. Five cases of malignancy were found, one uterine fibroid with carcinoma of the base of the bladder; and one with carcinoma of the fundus. The significant finding was that in no case could it be proved that the tumor of the ovary was the primary seat of malignant changes, although it was suspected in one instance. The only two deaths occurred in patients primarily operated for the malignancy, the dermoid cysts being incidental findings. Primary malignant degeneration of ovarian dermoids apparently is infrequent.

COMPLICATIONS

Fourteen (28 per cent) of the fifty patients operated upon had dermoid cysts unaccompanied by other complications. In the thirty-six remaining cases most of the complications encountered in gynecological surgery were found. Torsion of the pedicle occurred in five cases (10 per cent) and malignancy of the genitalia in six cases (12 per cent). Other pathology from lacerations to chronic infections were common, but no one group of associated conditions was very prominent. It is more interesting to note that in 38 patients, while there was often other pathology present, the abdominal or pelvic tumor was the reason for the patient seeking medical advice, while in the remaining twelve cases the dermoid of the ovary was found during the course of operation performed for other conditions and was not of primary importance. From this it will be seen that dermoids of the ovary are of considerable primary surgical interest.

MORTALITY AND OPERATIVE RISK

When a dermoid cyst of the ovary is diagnosticated either before or at the time of operation the question of increased risk to the patient must arise. In this series there were two operative deaths (4 per cent). Both of these patients were operated primarily for malignancy of the genital tract, the teratomata being incidental. That is not an excessive operative mortality, and it would be safe to assume that, barring conditions resulting from advanced necrosis, malignant metastasis or other concomitant pathology, the operation for dermoid cyst should not be attended by great risk for the patient.

SUMMARY AND CONCLUSIONS

1. Clinically the cases do not permit any conclusions to be made upon the etiology of dermoid cysts of the ovary.

2. Dermoids of the ovary are found most frequently during the ages corresponding to the periods of greatest sexual activity, indicating a possible endocrine stimulus as a cause of their growth after a dormant period.

3. Menstruation is unaffected in uncomplicated cases of ovarian dermoids.

4. This type of tumor is rarely bilateral, occurring only once in the series, although many cases have been reported.

5. Fecundity is not impaired.

6. Primary malignant degeneration of ovarian dermoids occurs rarely; secondary malignancy is more frequent.

7. The symptoms associated with dermoids of the ovary have no differential diagnostic value.

8. Dermoid cysts of the ovary are frequently found in conjunction with other pathology which may make them of secondary importance.

9. Dermoids per se do not increase the operative risk attendant upon this class of tumor.

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AVERTIN IN OBSTETRICS AND GYNECOLOGY*

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Avertin, tri-brom ethylalcohol, was first produced by Duisberg and Wilstatter in 1923. Eichholtz demonstrated its anesthetic properties in 1927. Since that time over 250,000 cases have been reported in the literature of Germany, England and the United States. When first produced it was in a crystalline form and great care was necessary in preparing the drug for rectal administration. In order to make a solution it was necessary to heat the drug to about 104° F. If heated too much it broke up, dibromacetaldehyde was liberated and considerable irritation or even gangrene of the rectum resulted. We now have the avertin fluid, one cubic centimeter containing one gram of the drug. The preparation is simplified and the danger of rectal irritation practically eliminated.

The drug should be administered in a 3 per cent solution as a retention enema, the dose depending upon the age, weight and general health of the patient. Children tolerate the drug better than adults and the aged less than those in middle life. According to weight, the dose varies from 70 to 110 mgm. per kilo. The poor risks, the feeble and aged need a much smaller dose than the healthy young adult. In general, those who are hard to anesthetize by any method will need a larger dose of avertin than the feeble and poor risks.

Avertin has been used in all kinds of cases and it has been found that there are very few contraindications. The drug depresses the respiratory center, causes a fall in blood pressure and inhibits the cough reflex. Because the cough reflex is lost the drug should not be used in cases of lung abscess, bronchiectasis or pulmonary tuberculosis. Also because the drug is detoxicated in the liver it is contra-indicated in cases of liver disease.

We prepare the patient by giving a cleansing enema and 10 grains of chloretone the night before the operation. The morning before the operation no enema is given because it might not be all expelled and so prevent or retard the absorption of the drug when given. The chloretone is repeated, 10 grains being given at 6 A. M. One hour bebefore the operation ¼ grain of morphine and 1/150 grain of atropine are given. We

*From the Department of Obstetrics and Gynecology of the University of Michigan. This paper was presented before the Section on Gynecology and Obstetrics at the 110th Annual Meeting of the Michigan State Medical Society, held at Benton Harbor, Sept. 15, 16, 17, 1930.

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have not found that the morphine causes any greater cyanosis but have found that the induction is much smoother.

The drug is given by the anesthetist and the nurse in charge in the patient's room. The patient is not told that the enema contains the anesthetic. Within three to five minutes the patient is in a deep sleep. This deep sleep lasts for one and one-half to three hours. The respirations are slow and shallow. If any cyanosis appears the respiratory center can easily be stimulated with caffeine sodium benzoate. The blood pressure may drop from 15 to 50 mm. of mercury and can always be elevated by administering ephedrine. The blood pressure, however, usually becomes stationary or may rise as soon as the operation is begun.

As soon as the patient is anesthetized, she is taken to the operating room and prepared. During the operation the anesthetist takes the blood pressure every five minutes and keeps the throat open by means of an airway.

In one hundred and four cases operated in the Gynecological Department it was necessary to use ether in only two cases. These were radical panhysterectomies for cancer of the cervix. Sixty-four had avertin only and 38 avertin and nitrous oxide. Using 75 per cent nitrous oxide and 25 per cent oxygen, one obtains the same relaxation as under deep ether anesthesia. Because the respirations are shallow there is no struggling with the bowel coils during the operation, be it an abdominal or vaginal hysterectomy. In many cases a pack was used only to protect the bowel coils from trauma.

When the patient is returned to bed an attendant should watch the patient until she recovers, for the jaw usually drops and the tongue may drop back and close the throat. As soon as the patient reacts ¼ grain of morphine is given. The patient soon falls asleep for eight to ten hours.

We have noted that there is very little nausea and vomiting and that there are very few gas pains during the convalescence, except in those cases in which the bowel has been traumatized in separating adhesions. There is a complete amnesia from the time of administration until full recovery. Lastly, the drug is neither irritating in its administration nor elimination. For the above reasons we believe the drug more nearly approaches the ideal anesthetic than any other which we have at the present time.

OBSTETRICS

We have always taught that labor is a normal process and that anything, be it drug or manipulation, which made this process abnormal, should not be used. All of the obstetrical analgesics or anesthetics have made the second stage of labor abnormal, abnormal because the patient has not been able to use her voluntary powers of expulsion.

Knowing that avertin would render the patient unconscious within three to five minutes, we began using it when the head was about to move over the perineum. Seventy mgm. per kilo of avertin in a 3 per cent solution were placed in the rectum above the fetal head. Some of the deliveries were painless and others were uncontrollable, the patient becoming greatly excited, and the head was born before the drug took effect. Reed believes that it can be used in normal obstetrics but we do not believe that it will ever be used except in hospital practice.

In abnormal labor the drug is of great value because it renders the patient unconscious very quickly and apparently has no ill effect upon the baby. By abnormal labor, we refer to forceps deliveries, versions and extractions and cesarean sections. In one cesarean section the baby did not cry immediately but the heart was beating normally and the respirations were normal.

In eclampsia we have had remarkable results. Five cases have been treated with the drug and none have had a single convulsion after its administration. Three were cases of antepartum eclampsia, one intrapartum and one postpartum. Two had at least five convulsions before admission to the hospital. The drug was given as soon as possible after admission, 70 to 90 mgm. per kilo of body weight. The patients became unconscious within a few minutes and were taken to the delivery room for an induction of labor. Labor was induced by means of a large bougie and magnesium sulphate placed in the stomach via stomach tube. The patient could not be stimulated by such manipulations. The complete effect of the avertin does not disappear for several hours and can be repeated if necessary without harm to either patient. Neither does it have any effect upon uterine contractions. These patients have gone through normal labors and

normal deliveries without further convulsions.

In the one postpartum case, the avertin solution was sent twenty miles to the physician in charge. After its administration the patient was brought to the hospital, where it was necessary to repeat the avertin.

We do not present avertin as a cure of eclampsia but as a substitute for the large doses of morphine necessary to control the convulsions. Avertinized patients cannot be stimulated into a convulsion by the passage of a stomach tube, by the induction of labor or by colonic irrigations.

CONCLUSIONS

From the observation of a small number of cases we do not believe avertin is of great value in normal obstetrics. In operative obstetrics it is of great value in producing a deep anesthesia quickly without harm to either patient. In eclampsia it is a remarkable addition to our present methods of treatment.

ECLAMPSIA—A PREVENTABLE DISEASE*

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Current medical literature frequently contains articles dealing with the subject of eclampsia. For the most part these articles deal with this or that treatment of this condition—one which each and everyone of us dreads and fears. Now and then a new theory as to its etiology is proposed, but on the whole the actual cause of eclampsia remains a mystery, its treatment variable, and its prognosis uncertain. The purpose of this paper is to make an appeal, namely that we put into practical application the knowledge we already have regarding eclampsia and the associated toxemias of pregnancy. It is not my purpose to review the literature on all the scientific aspects of this disorder or to dwell extensively upon its treatment. I do hope to present evidence accumulated over a number of years from my own private obstetrical practice, sufficient to establish the statement that eclampsia is preventable.

In September, 1928, the Michigan Department of Health published an analytical report on 819 maternal deaths in Michigan during the preceding two years. "From a public health viewpoint the outstanding facts brought out by this study . . . are the large number of deaths under thirty years of age, *the inadequacy of prenatal care* received by these mothers,"[1] and that 24 per cent of these deaths were attributed to albuminuria and convulsions—presumably pre-eclampsia and eclampsia. A few years ago, I was struck with the inadequate and time consuming practice of the usual handwritten office notes. I, therefore, devised an office record of such a nature that my findings at each prenatal observation could be recorded chronologically in a moment's time. This record becomes a graphic chart of the patient's prenatal period and adequately in-

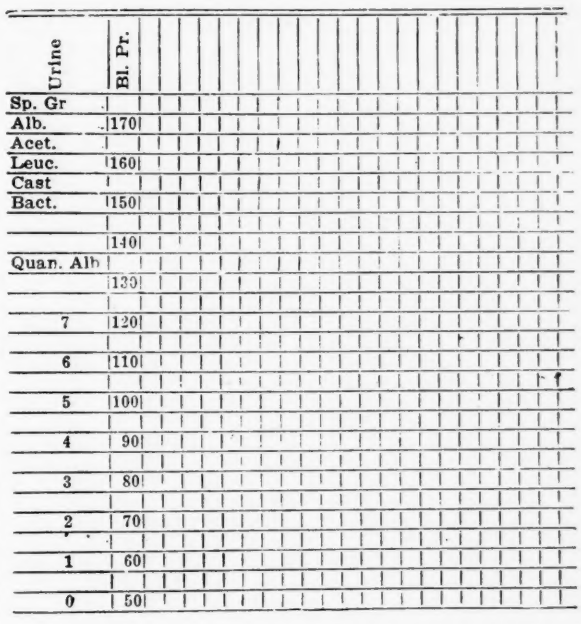

Fig. 1. This is a view of the blank chart which on my own records occupies a space 3¼ × 3½ inches. On it I record the date, urinalysis findings, blood pressure readings, pulse rate, weight and quantitative albumin when necesarry.

*This paper was presented before the Section on Gynecology and Obstetrics at the 110th Annual Meeting of the Michigan State Medical Society, held at Benton Harbor, Sept. 15, 16, 17, 1930.

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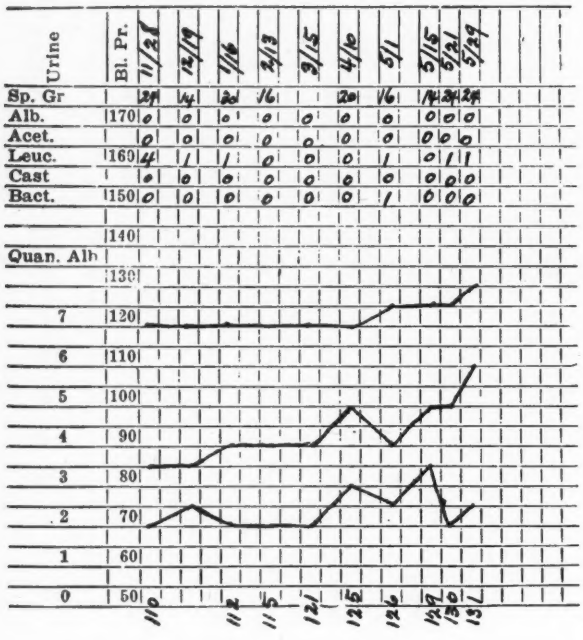

Fig. 2. The upper curve is for the systolic pressure; the middle curve (recorded in red for purposes of differentiation) is that of the pulse rate and the lower curve the diastolic pressure. This is the record of a normal pregnancy in a primipara 27 years of age. For all practical purposes the urinalyses are all normal, the blood pressure curves constant, and the pulse rate with a slow rise.

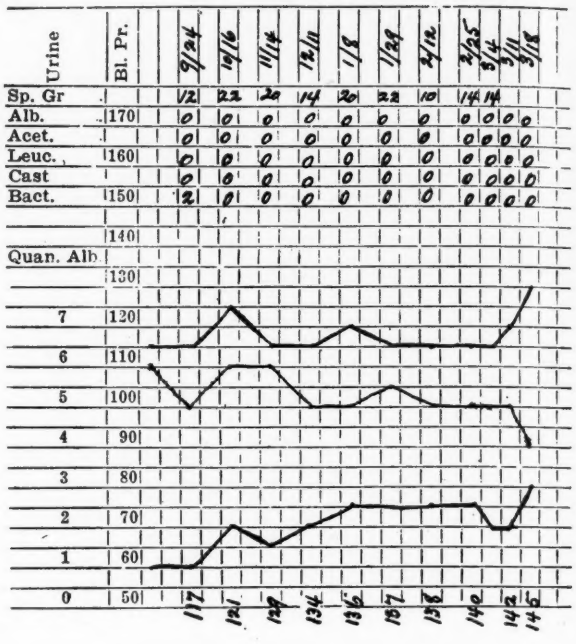

Fig. 3. This is the record of a normal pregnancy in a primipara 36 years of age. The urinalyses are all normal, and except for slight variations the blood pressure and pulse curves remain essentially level.

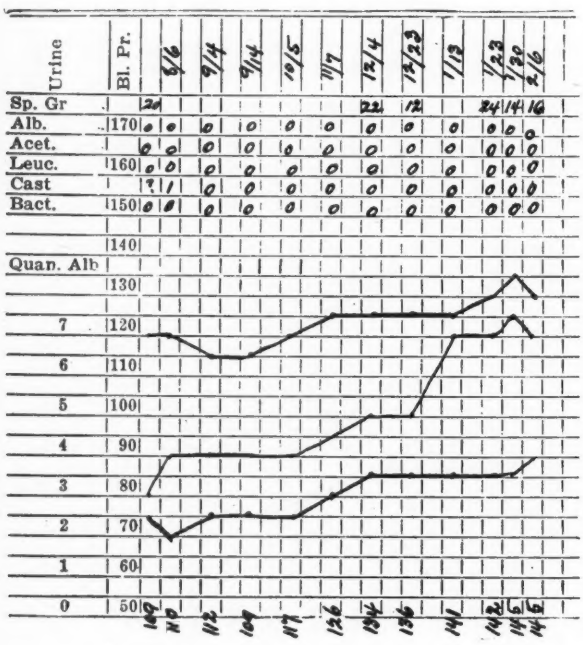

Fig. 4. This is a record of a primipara 26 years of age. The urinalyses are all entirely negative. About the middle of the pregnancy a slight rise in blood pressure occurred which never receded, and toward the end of pregnancy showed a slow gradual rise. The patient's pulse rate was quite rapid the last six weeks.

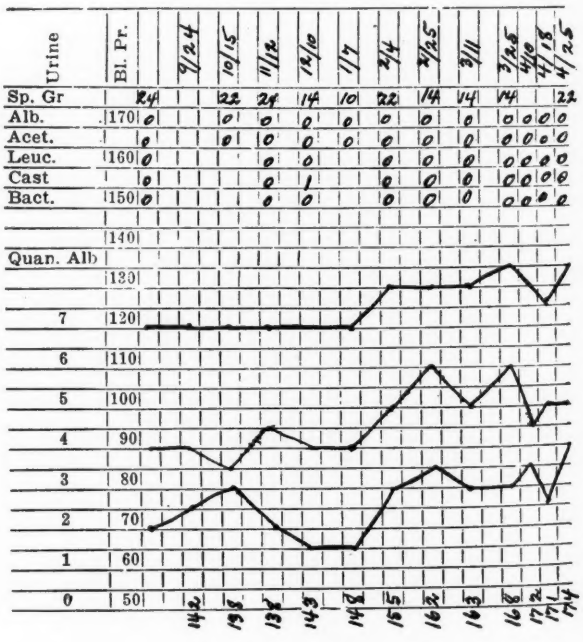

Fig. 5. This is the record of a primipara 24 years of age. Like the previous one, all urinalyses were normal, but the blood pressure curves showed a slight upward trend during the latter half of her pregnancy. Curves such as the last two occur in cases which are on the borderline of normal in spite of negative urinalyses and no subjective symptoms.

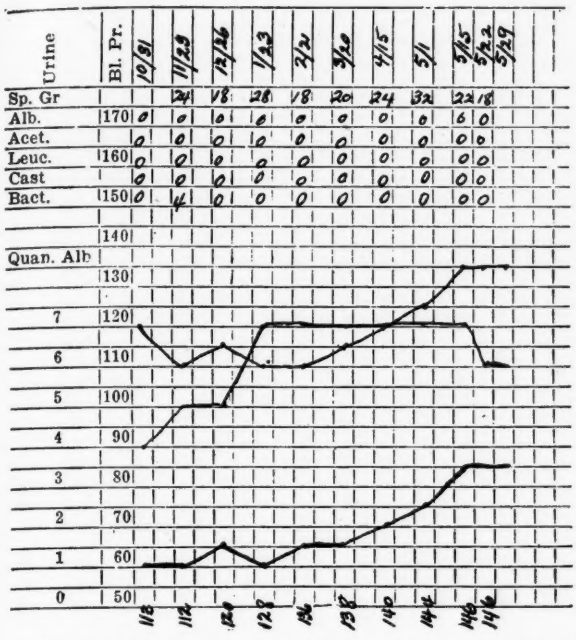

Fig 6. This is the record of a primipara 22 years of age. Here also we find all urinalyses normal, but a comparatively rapid pulse rate and definitely ascending blood pressure curves. The pregnancy terminated itself spontaneously and the patient developed no symptoms. The placenta showed evidence of toxemia.

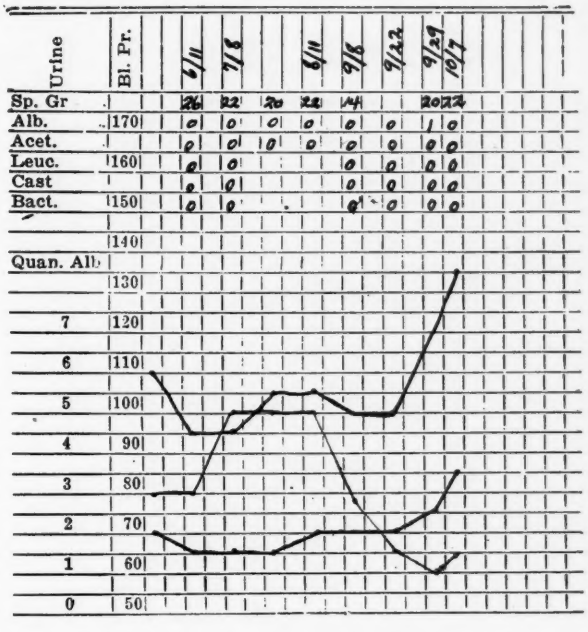

Fig. 7. This is the record of a primipara 33 years of age. There was a trace of albumin three weeks before term. Note that the systolic blood pressure went up 30 millimeters during the last month. With these findings ten days before term this patient had labor induced and developed no further evidences of toxemia.

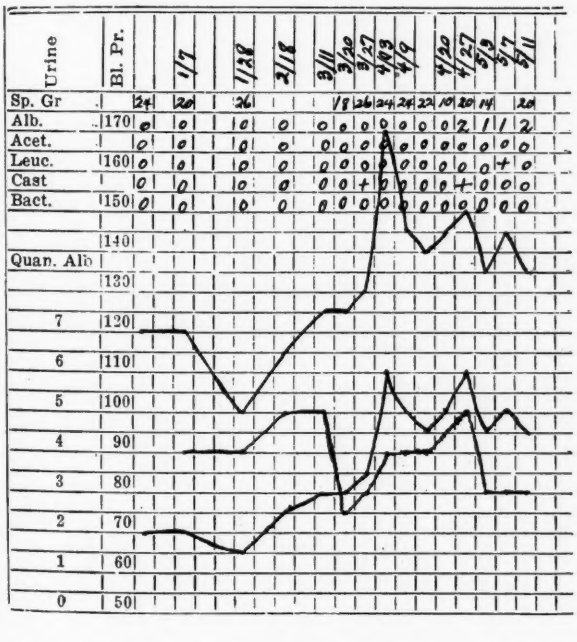

Fig. 8. This is the record of a primipara 25 years old. At about seven months gestation a few casts appeared in the urine. A slight rise in blood pressures preceded this, and the week following there was a sharp rise to 170 millimeters systolic pressure. The following week there was a drop back to 145 millimeters. Three weeks later albumin and casts appeared in the urine and the albumin persisted to the end of the pregnancy. In this case the patient was carried along on bed rest and very restricted diet to term. After a rather long labor she gave birth to a very toxic baby, which required ten to fifteen minutes of resuscitation. In this case both the mother and her baby would have been in much better condition had the pregnancy been terminated artificially about two weeks previously.

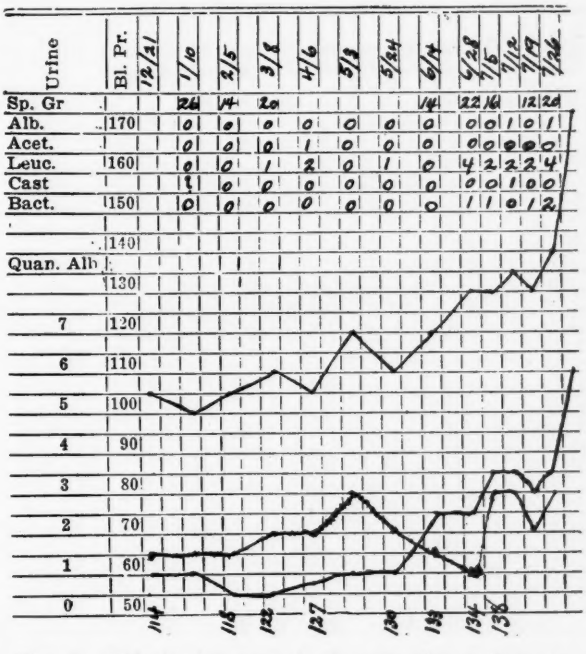

Fig. 9. This is the record of a secundipara 31 years of age. During the latter half of her pregnancy there was more or less pus in the urine at all times. Her blood pressure curves showed a gradual rise over the same period of time, and in the last month albumin and casts were present in the urine on two occasions. When this patient entered the hospital in labor her systolic pressure was 176 millimeters. A toxic headache and a systolic pressure of 180 millimeters persisted for 36 hours post-partum. I might mention in passing that this patient showed identically the same findings in both her pregnancies.

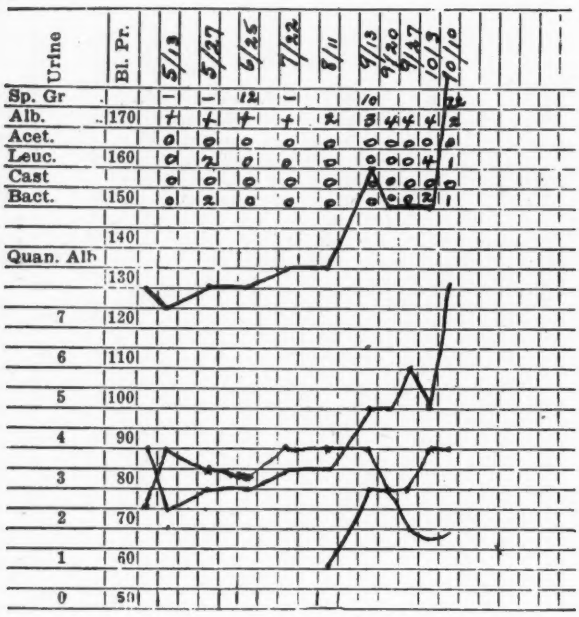

Fig. 10. This is the record of a primipara 29 years of age, with a history of chronic nephritis. Albumin was present in the urine at all times and her blood pressure early in pregnancy was about 15 millimeters above the average for her age. No particular change occurred in this patient until the end of the seventh month, when a definite increase in albumin and rise in blood pressure took place. This patient was put to bed and kept on a very restricted diet. The lower curve shows a quantitative albumin content of 1 to 3 gms. At the end of the eighth month the blood pressures definitely increased, and there was considerable edema. The pregnancy was terminated by artificial induction of labor and the mother recovered without further complications and was rewarded with a living child. These last two cases probably belonged in the nephritic group of the toxemias of pregnancy and therefore were not pre-eclamptics, strictly speaking. The essential point, however, is that they were not allowed to develop convulsions or give birth to toxic babies.

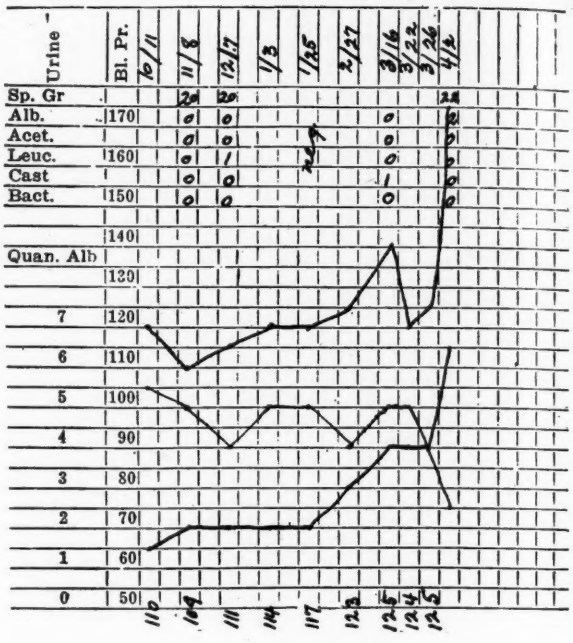

Fig. 11. This is the record of a primipara 22 years of age. She enjoyed a perfectly normal pregnancy until about 7½ months, when a few casts were noted in the urine and the blood pressures were about 20 millimeters above their previous average. Two weeks later albumin appeared in the urine and the systolic blood pressure reached 180 millimeters. This patient had no subjective symptoms and rather scorned the possibility of any impending danger. The patient having reached the end of the eighth month, we could assure her a living baby. In order to intercept the oncoming eclamptic state, labor was induced artificially, and the patient saved any further damage.

cludes all essential observations. Because it places the patient's condition before one without reviewing, and because of its simplicity this chart appeals particularly to the busy practitioner of medicine.

With the aid of a few lantern slides I would like to demonstrate its practicable application and interpretation.

These are typical records selected out of a series of two hundred cases that have been so followed through their pregnancies. I have shown you specimen records of normal, borderline, and toxic cases. Not one case of eclampsia occurred in this series of patients. My purpose has been accomplished if I have succeeded by presenting these specimen records for your consideration in making prenatal care interesting and simple, but, above all, efficient and adequate. If it is true that 75 per cent of the 819 mothers who died in Michigan in two years time had little or no prenatal care,[2] it becomes very evident that we must provide adequate prenatal care; and this care must be provided by the family physician, who cares for the greater portion of our obstetrical patients. On this I think we are all agreed. "We cannot prevent eclampsia by medical treatment because we don't know the nature of the disease, but we can often tide a patient over a threatening period for a short time until the child is viable, and then forestall the convulsions by emptying the uterus."[3]

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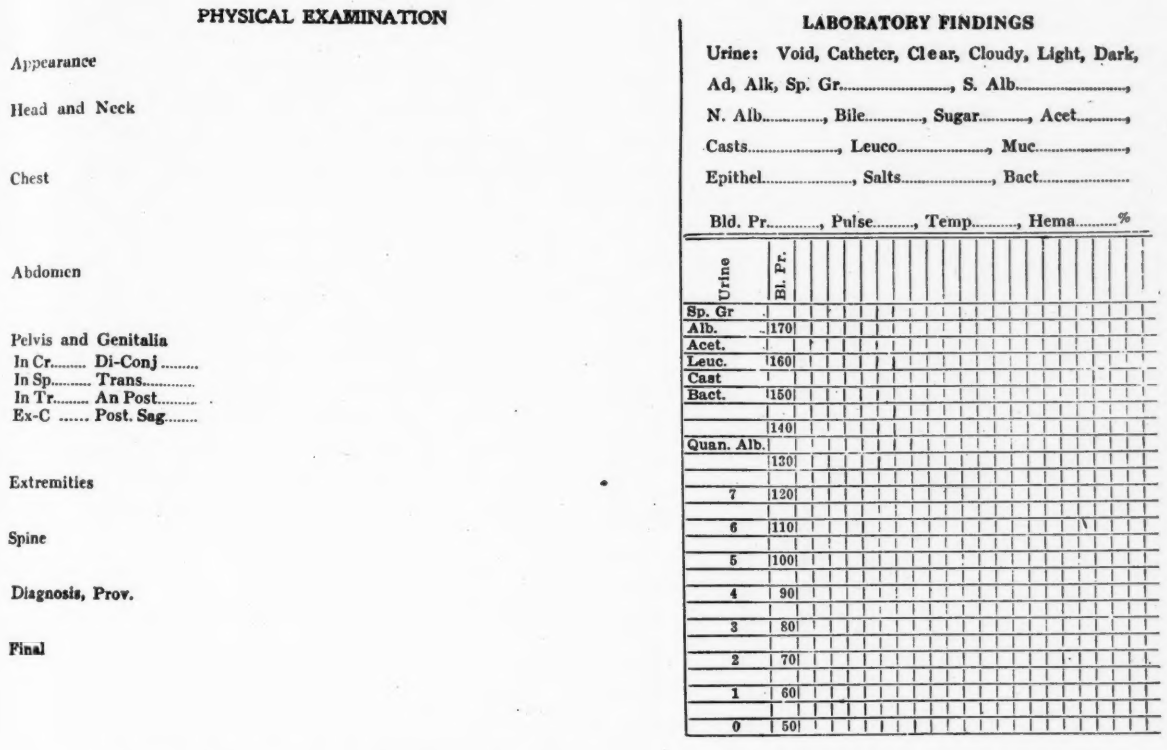

Fig. 12. This last slide is a reproduction of the physical examination sheet used in my office. It is a standard 5 × 8 record and in the lower right hand corner is the portion of the record shown you in Figure 1.

OBSTETRICAL MORBIDITY*

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The subject of obstetrical morbidity is one deserving of attention. We are all concerned about our mortality in obstetrical work, but I believe we have been a little too complacent about the morbidity. There is the normal case on the one hand, and at the other extreme the case which dies. Between these two there is the morbid case, the severity of which determines how nearly it will approach the mortality side. With reduction of our morbidity the influence on mortality as attached to obstetrics will show improvement.

In making an exhaustive study of a series of sixteen hundred ninety-one consecutive full term obstetrical cases between 1925 and 1929 at Blodgett Memorial Hospital, one thing which stood out was our morbidity as expressed in terms of temperature elevation during the hospital stay. Webster defines morbidity as "a departure from the normal." The previously well woman who, following confinement, is left with a retrodisplaced uterus, who has backaches, who presents fatigue symptoms, who has an endocervicitis, who becomes a semi-invalid, who comes into the class of so-called "one child sterilities," gives evidence of an existing or a pre-existing morbid state. These cases do not all of necessity have temperature elevations following the termination of labor, but a goodly percentage do. In the scope of this paper to go into all the ramifications of morbidity would be too great a tax upon your time and patience. So, while recognizing that temperature elevation is not always present in the morbidity attached to obstetrics and that we may not always recognize

*Read before the Section on Gynecology and Obstetrics at the 110th Annual meeting of the Michigan State Medical Society, held at Benton Harbor, September 15, 16, 17, 1930.

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our morbidity until after the patient leaves the hospital, yet temperature elevation is evidence of some damage having been done in a large percentage of the cases. Therefore, for purposes of this paper we will limit ourselves to a study of morbidity as expressed in terms of temperature elevation.

There is no exact standard by which to judge obstetrical morbidity. De Lee at the Chicago Lying-In Hospital classes as morbid any temperature of 100° or over at any time during the hospital stay of the puerperium. There are other figures in this country where a temperature of 100.4° on two consecutive readings following the first twenty-four hours is used as a basis. The British Medical Association standard includes all fatal cases and all cases in which the temperature exceeds 100° on any two of the bi-daily readings from the end of the first to the eighth day after delivery. In going over a series of reports dealing in morbidity in this country the more generally accepted standard is one based on a temperature of 100.4° after the first twenty-four hours.

In our series of sixteen hundred ninety-one cases we found as follows:

Temperature of 100° or above at any time after delivery	513 or 30.4 per cent
Temperature of 100° on two occasions after first 24 hours	316 or 18.7 per cent
Temperature of 100.4° on two occasions after first 24 hours	249 or 14.7 per cent

In the five hundred thirteen cases with temperature elevation of 100° or over at any time following delivery, the varying heights of temperature were as follows:

Temperature	
100.0–100.4	199
100.4–101	117
101 –102	108
102 –103	45
103 –104	23
104 –105 plus	21
	513

The day on which the temperature first arose was:

Day of delivery	113
1st day	78
2nd day	55
3rd day	111
4th day	44
5th day	29
6th day	22
7th day	16
8th day	9
9th day	15
10th day and above	21
	513

You will note that the first five days gave us 401 cases or slightly over 78 per cent of our temperature elevations.

We have tried to enumerate the causes of the temperature as well as we could by careful study of each chart and we find the apparent causes as follows:

Breasts	149
Exhaustion	55
Sapremia	50
Pyelitis	29
Intestinal intoxication	26
Cystitis	15
Bronchitis	13
Toxemia	11
Repair	7
Puerperal septicemia	5
Throat infections	4
Pneumonia	4
Phlegmasia alba dolens	3
Appendicitis	3
Sinus infection	2
Salpingitis	2
Secondary anemia	2
Thyroid toxemia	2
Tuberculosis	1
Bowel obstruction	1
Swollen glands of the neck	1
"Flu"	1
Abscess following hypo	1
Gallbladder disease	1
Cause not apparent	125
	513

Some of these causes undoubtedly are almost beyond our control, either by prenatal, natal or postnatal attention. But the majority are possible of some amelioration if we will but give them more consideration.

In looking over these figures and classifying them we can, I believe, put a large portion in three categories: (1) Exhaustion, (2) Toxic conditions, and (3) Infections.

EXHAUSTION

Experimentally it has been shown that muscular exertion will tend to slightly elevate the temperature, probably not enough, however, to produce a morbidity as we have accepted the standard, but the muscular exhaustion combined with the attendant dehydration and blood loss at the time of delivery, can without question produce an elevation of temperature. This, I believe, is productive of a good many of our temperatures the day of delivery and the day following. In going over our charts I found not an inconsiderable number which we eliminated from our figures where a definite temperature rise was recorded during delivery. Following delivery the temperature fell below our 100° standard and remained down, evidence, it seems, of the effect of the muscular exertion. We have all seen cases,

both in obstetrical work and in other work, where anemia was without doubt the cause of temperature elevation. While probably temperature elevation due to exhaustion or hemorrhage of itself is not of as much concern as some of our other causes of morbidity, yet it is important in that it may so weaken our patients and so lower their resistance that they are the more susceptible to infections of various sorts. Hence, one of our duties is to try to reduce this factor. The judicious use of morphine, the careful observation of our patients and the proper intervention and artificial aiding of delivery is important. I do not want to be thought of as one advocating too much meddlesome midwifery, for operative deliveries undoubtedly increase postpartum morbidity, but where aid is needed, the earlier it is instituted the better will be the after-results. The more cases I see the more I value aid given early in those cases where it is needed. This takes, of course, experience and mature judgment. The control of dehydration can be watched—glucose and saline immediately after delivery can do no harm if there is any question of fluid loss, and to give oftener than is necessary is to err on the safe side. Hemorrhage can be controlled to a definite degree. Patients should be watched for some time after delivery, and too much responsibility is turned over to nurses to watch for the hemorrhage. I personally try to observe my own cases for an hour to an hour and a half after delivery.

TOXIC CONDITIONS

Here prenatal care has a very definite value. Removal of possible foci of infection early in pregnancy, careful observation of the patient during the pregnancy with attention to the first signs of any toxemia and an attempt to reduce our incidence of toxemia will undoubtedly have a very definite bearing on our morbid rates. Proper elimination is important. In the group of cases listed as "no apparent cause," I feel certain that quite a number of them should be classified under "toxic conditions." Repeatedly I found under the nurses' notes on days coincident with the temperature elevation "tongue coated," then on subsequent days "tongue clear," and the temperature would be down. Was the temperature elevation due to intestinal disturbance? Consideration of this brings up several interesting things to think of—diet, catharsis, enemata, etc. Shall we put our patients on a liquid or soft diet, or shall we let them have a general diet the first twenty-four or forty-eight hours after delivery? Personally, I can see no rational reason for starving patients, or reducing their food intake after a normal labor. And what of catharsis and enemata? Does constipation of itself give rise to temperature elevation? Probably not—a full rectum may give rise to a partial obstruction of the lochial flow and thereby give rise to temperature elevation, but I do not believe that the constipation is responsible. The use of cathartics, then, is not necessary—simple saline enemas will empty the full rectum with as little irritation to the large bowel as possible. McPherson a number of years ago carried on some interesting work as relates to care of the bowels. In a consecutive series of cases, alternating first one case and administering catharsis and taking the next with no catharsis, he found that in nine hundred eleven cases without carthartics the incidence of morbidity was 5.8 per cent, but in nine hundred cases where cathartics of various types were employed the incidence of morbidity was 9.3 per cent. These cases were, of course, subject to all the other possibilities of morbidity, but in such a large series undoubtedly the other causes more or less counterbalanced each other. His conclusions were that the preferable thing was to use enemata, beginning on the third day. But given a normal case without severe lacerations is it not feasible to begin evacuations, say twenty-four hours after delivery? Daily enemata thereafter will control the elimination effectively.

INFECTIONS

This group from our findings gives rise to the largest number of cases of temperature rise. It may be divided into three general groupings:

1. Infections of the genito-urinary tract,
2. Infections of the breasts, and
3. Infections of the reproductive tract.

Pyelitis and cystitis constituted forty-four cases in our series or a little more than 8.5 per cent. This percentage is probably a little low, for there were a few cases from our "no apparent cause" group which probably would classify here. Prophylactic treatment of emptying the bladder before de-

livery by catheter is, I hope, a routine with all of us. The bladder supports will be protected and unnecessary traumatization of the bladder will be avoided. This trauma to the bladder walls must be a factor in the development of a cystitis with possibility of a later developing pyelitis. My observation has been that in some cases, especially after severe labors, although patients void spontaneously there is an incomplete emptying of the bladder due possibly to a paralyzing of the bladder walls. Would it not be a good rule to catheterize patients and determine if a residual exists? If a residual does exist appropriate irrigations could be commenced earlier with quicker results. Every catheterized specimen should be examined especially microscopically if we are to obtain the full value of the procedure. I believe that sitting patients up to void early would do no harm and would not only aid in the emptying of the bladder but would also aid the lochial flow.

Disturbances of the breasts gave rise to our largest single group, constituting about 29 per cent of our total morbidity. Some authorities state that there is no such thing as "milk fever," but we all have seen cases where as the breasts start lactation they become sore and the patient has a rise in temperature. Careful search will reveal no apparent reason for the temperature, and as the breasts feel better the temperature drops. In those cases of overly engorged breasts the use of ice caps early and the judicious pumping of the breasts will be of benefit. Proper care of the nipples is an important factor. Personally, I have found that the incidence of cracked nipples has been reduced by the use of an ointment for six or eight weeks before delivery consisting of sodium biborate, lanolin and vaseline. Allowing the baby to nurse too long on the non-functioning breast is conducive to irritated nipples with the possibility of infected breasts. While uterine contractions and stimulation of lactation are aided by the suckling baby and while the colostrum is of definite value in the early intestinal activity of the infant, yet overly long nursing is not needed for the necessary physiological stimulation. Proper support of the breasts will avoid occluded milk ducts and the attendant caking. A breast binder which does not support the breasts properly is worse than none at all. Especially is it essential that a properly fitting uplifting brassiere be advised as the patient gets up and around. This will avoid those later breast troubles which we all have seen after the patient goes home. It is unnecessary to emphasize the value of careful cleansing of the nipples and the use of sterile pads over the nipples between nursing periods.

Infections of the reproductive tract gives us our third grouping, and here we get the most serious results. Septicemia, sterility, endocervicitis all follow in its wake. Any exploration of the vaginal canal or uterus is a dangerous procedure during labor and should be avoided when possible whether for purposes of examination or delivery. Reduce examinations to a minimum and this applies, I believe, to rectal as well as vaginal examinations. I sometimes wonder if we recognize that rectal examinations are not devoid of danger. In fact, I believe if properly made that vaginal examinations carry but little more danger than rectal examinations. Pushing the vaginal wall against the cervix roughly as must be done if one is to feel a thin cervical edge by rectal examination certainly must have a tendency to stir up latent bacteria present in the vagina. Polak and Clark found but a very slight increase in morbidity in rectal versus vaginal examinations. Reis found a higher morbidity in rectal examinations. He also found a definite decrease in those cases where no examinations were made.

Proper preparation of the patient for delivery is important. Mayes found that by flooding the vagina and spraying the vulva with 4 per cent mercurochrome his morbidity was reduced 50 per cent. At the University of Michigan and at Johns Hopkins University this finding was not substantiated but recently Bessesen and Henderson have confirmed these findings.

Absolute surgical asepsis should be employed in repair work. We all know this and agree to it, but my observation has led me to believe we are apt to get careless in this respect. How many times do we attempt more or less extensive repair without adequate help—attempts at similar reconstruction later on in the woman's life would not be undertaken with as little help as is often done in the delivery room. Would it not be more reasonable to postpone extensive repairs until sufficient help is available?

The promotion of adequate uterine drainage is an important factor. Patients should

be encouraged to early moving about in bed, they should be instructed to spend part of the time on their stomachs after the first twenty-four hours. As mentioned before, having patients sitting up to void will help promote the lochial flow. After delivery and the expulsion of the placenta, expression gently of the first large blood clot from the uterus is a commendable procedure. Another but smaller clot will form. Observation has shown that patients in whom blood clots are expelled have less after-pains. Ice caps to the abdomen, Fowler's position and routine ergot are all aids in the reduction of sapremic infections. In those cases where potential infection is felt to exist the use early of a foreign protein may be of some benefit. In the Kermauner Clinic in Vienna this is a routine procedure.

Treatment of an existing endocervicitis prenatally is of value, and especially is it of value if the nature of the organism present is determined in aiding us to combat any temperature elevation.

Exploration of the vaginal canal after delivery with cervical repairs is to my mind a debatable procedure except, of course, in those cases where lacerations sufficient to cause hemorrhage have occurred. Time and reports on morbidity will determine the value of routine cervical examinations immediately after delivery.

CONCLUSIONS

1. Our morbidity is too high.
2. There is no exact standard in this country by which to judge morbidity.
3. The majority of morbid cases fall into three groups: a. Exhaustion, dehydration, hemorrhage, b. Toxic conditions, and c. Infections.
4. More careful study and prophylactic treatment will reduce our morbidity and have a decided influence on our mortality.

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AUTOMOBILES MORE FATAL THAN WAR

More lives were lost in the United States during the last year and a half as a result of automobile accidents than in the A. E. F. during a year and a half of the World War, a survey by statisticians of the Travelers Insurance Co. shows. During 18 months of the World War 50,510 members of the A. E. F. were killed in action or died of wounds. During the last 18 months 50,900 persons were killed in automobile accidents in this country.

The 1930 total of deaths from automobile accidents was 32,500, the statisticians determined from reports of 40 states. This represents an increase of more than 1,200 over the 1929 total, although gasoline consumption dropped more than one billion gallons in 1930, with consequent reduction of mileage traveled by automobiles.

"Men were behind the wheel in 93 out of every 100 cars in accidents causing deaths and non-fatal injuries in 1930, with women being the drivers in the remaining seven," the records showed. "Whether the better record of women drivers as to fatalities is due to better driving, or not being behind the wheel for as many miles as men on the average, is not indicated." In over half the fatal accidents, the drivers were between the ages of 25 and 54. In nearly a third more, the drivers were between 18 and 24 years.

One-half the automobile fatalities occurred in collisions with pedestrians, one-fifth in collisions with other automobiles and about one-tenth in collisions with fixed objects. Over half the non-fatal injuries were from collisions with other automobiles and one-third of such injuries occurred in collisions with pedestrians.

The large number of motor vehicle fatalities cannot be charged up to the automobile itself. About nine-tenths of the killed and injured were victims of automobiles in good mechanical condition at the time of the accident. Most of the automobiles involved in these accidents were private passenger cars, though this class also represents most of the total motor vehicle registration in the country.

"Three specific driving violations by operators of automobiles were responsible, in whole or in part, for 68 per cent of the 1930 accidents due to improper driving. They were exceeding the speed limit, driving on the wrong side of the road, and failing to grant right-of-way," the report stated. Violations of driving regulations by motorists played a part in over two-thirds of all the automobile accidents.—*Science Service.*

FAMOUS MEN IN MEDICAL HISTORY

EARLY AMERICAN MEDICINE AND DR. ZABDIEL BOYLSTON*

W. H. STEFFENSEN
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With the first motive of our ancestors to settle in America there arose another channel whereby medicine as an art and a science might be developed. In as young a country as the United States it is a comparatively easy matter to trace the growth of science from its earliest beginning, and medicine is no exception to this rule. The historical material available is of exceptional interest to the reader of history, since the medical men of the colonial period sowed the seed for future medical progress in this country and many of them seemed to have been possessed of much ability and medical knowledge such as it was in their day.

At the opening of the seventeenth century Europe was only beginning to emerge from the darkness of the Middle Ages. Medicine had changed relatively little, save in the field of diagnosis, since the time of Galen. It was, in reality, still more of an art than a science. Medicine during the early days in the colonies received scant consideration. Like father, like child; such being the state of medicine and the medical practitioner in the old world, what else could be expected of the art and the artists when transported to the new world?

Of the English that settled in America most of them had one or several doctors in their colonies. Thus we know the name of the first physician in the first permanent settlement in this country—a Dr. Thomas Wooton, Surgeon General of the London Company and Surgeon General to Captain John Smith when his people settled at Jamestown. A short time after the settlement of his colony Dr. Walter Russell, a well trained physician, arrived, and in 1610 a third physician, named Dr. Lawrence Bohin, made his addition to the colony. Strangely enough, none of these men remained in the colony long, with the exception of Dr. Wooton and a Dr. John Pratt, who arrived from England in 1624 and was made temporary governor of the colony in 1628.

Early Virginia doctors made a beginning of one good work, the completion of which still depends on the activities of the present day physicians. They stirred up the stolid members of the Assembly in the year 1639, to pass laws regarding the regulation of medical practice. In that day methods of practice were loose and medical standards were lacking. Quackery flourished, but with little hindrance to the men with good medical training.

The rôle of doctor had been played by the priests for many centuries in Europe, and clergymen in Virginia, as well as elsewhere, were continuing to act in that capacity.

Science came to Plymouth from England in 1620, brought there by one of the Mayflower group, a Dr. Samuel Fuller, medical practitioner and divine, who died at Plymouth in 1633 of a contagious disease caught from one of his patients. He was responsible for the survival of his colonists during their first winter, due to the bneficial effects of a small drug supply which he had brought with him. Following Fuller came many other physicians to the Plymouth colony, and competition was heated from then on in a struggle for medical supremacy in that district.

In New York before 1700 there were Dutch, English, and Huguenot doctors. They differed from the New England doctors in the respect that more of them had University degrees. William Penn's colonists, who settled in Philadelphia, had with them Dr. Thomas Wynne, who was undoubtedly the most learned man who had until that time come to America. These colonists were also accompanied by two other able men, namely, Drs. Thomas Lloyd and Griffin Owen. These doctors served in ushering in the expansion of another century, and were beyond the pioneer doctors of the other colonies, both in experience and in potentialities for scientific progress.

*Read before the Victor C. Vaughan Medical History Society, University of Michigan.

On the other hand, it was an era of barbarism, though it struggled toward the light. Harvey and Descartes were living, but the former had not made his great discovery. The truth was being sought, but as yet for rude America, crudeness and error reigned forgivingly. Medicine was held in part the work of the ministers, and the statesmen also lent a helping hand. Women of that day and until the middle of the eighteenth century professed skill in drugs as well as in midwifery, and, as Mumford states it, "people called a doctor only for their dire needs."

Physicians increased gradually in number in the colonies, most of them coming from England. In 1692 there were in the colonies 134 men who were doctors in name. Many of these men were graduates of famous English schools, while others had received their training only through apprenticeship.

It is not easily determined what the colonial conditions were which called for medical service. Children were born without troubling doctors much, and after the first few years of the struggle for the survival of the fittest, ordinary trifling illnesses known to us in an overcrowded civilization were practically disregarded. The sturdy frontier folk, leading a life of exposure, much in the open and ignorant of the bane of congested living conditions, had little need for doctors except for major ills. They were educated in the rudiments, intelligent, and not afraid to work. Earnest, God-fearing men who drove the plow, read their bibles and sent their eldest son to Harvard College, and women who treasured bits of family silver, discussed the state of the elect and did their own cooking for their large families, were not likely to be the parents of dyspeptic girls or boys unable to stand the rigors of the times.

We read, however, of grievous surgical conditions and fierce epidemics sweeping over the land. Smallpox, yellow fever, typhoid fever, scurvy, dysentery, influenza and various other contagious diseases were foes with which the doctors mostly had to contend. Epidemics were most frequent in the northern colonies, where ships came in often to the larger parts.

I have already alluded to the fact that colonial doctors left obstetrics entirely to the midwife. The latter occupied perhaps the most important part in community life in the early settlements. It was beyond the dignity of the male physicians of that day to act the part of an obstetrician, and as a result women monopolized the field. This practice was continued until the middle of the eighteenth century, the first man bold enough to enter the field being Dr. John Dupuy of New York. Nothing is recorded of his practice of midwifery except in his death notice. In 1754 Dr. James Lloyd settled in Boston and was the first medical man in Massachusetts to devote his practice solely to midwifery.

The field of general medicine struggled to establish itself on a progressively scientific basis. The earliest record of an autopsy in America is found in "An Account of Two Voyages to New England," published in 1674 in London, by Dr. John Josselyn, who had spent a short time in New England. There are also on record three other autopsies which antedate the one performed on Governor Slaughter of Massachusetts, which has generally been considered to have been the first autopsy performed in this country. No useful medical essays were written before the year 1700. The doctors before that date were brave and faithful men, spending all of their time comforting the sick, with little available time to spend toward the advancement of science. Medical science developed with politics from 1700 to 1775. The contributions of the eighteenth century to which American medicine is greatly indebted are (1) the inoculation for the prevention of smallpox, (2) the beginning of American medical literature, (3) the establishment of medical schools, and (4) the establishment of hospitals.

Mumford makes this statement, "In the history of early American science great names are lacking, and great events as well, so the interest to us is not so much in the men and what they did as in what kind of men they were and the influence that they had on the future. Therein lies the value of the work of Dr. Zabdiel Boylston, a man about whom little has been handed down to us, but to whom we owe a great tribute by his projection of scientific measures toward the prevention of smallpox by means of inoculation."

In 1700 the population of North America was about 300,000; at the close in 1799, nearly four million. At the beginning of

this era, of all the foes which our ancestors faced, such as hardship, famine, pestilence, Indian and foreign wars, the most dreaded of all was smallpox. If one could have lived back for one day the life of the early seventeenth century, the dress and language of the times would not be the striking element to the doctor—it would be the pock-marked faces. Sixty per cent of the people of that period were attacked by smallpox, and ten per cent of those stricken died. Judging from the accurate descriptions of epidemics of those days the virulence of the infecting organism was probably far greater, and the disease far more malignant, than the smallpox which is known to us. Then, too, there was the ignorance of the contagion of the disease. The majority of the people felt that the epidemics were the wrath of the Lord struck upon them, and they mingled with one another with horror, not realizing that the disease could be controlled by proper isolation and prevented by inoculation.

Like most ancient diseases, smallpox originally began in the far East, probably India. The disease was believed to have been brought to Europe by returning crusaders. Soon after the time of Columbus it had spread to the western hemisphere and it was ravaging America among the Indians when the English first settled here.

Two of the most notable advances in science and the practice of medicine made in this country originated in Boston. Both received their impulses from men not strictly occupying the ranks of physicians, and from both arose notorious controversies and scandals which are without precedent in modern science. First of all, smallpox inoculation rent the profession of medicine, and society as well, and later ether anesthesia raised storm and controversy.

The former, the inoculation against smallpox, offered probably the more lively controversy. It has been the general rule that science has been opposed in its more radical advances by the clergy, but this incidence is one to which there is an exception. Reverend Cotton Mather was responsible for the introduction and partial acceptance of inoculation for smallpox in America, sponsored by the able and bold Dr. Zabdiel Boylston.

In 1721 Cotton Mather was growing old. The "Magnolia" had been written many years before, and witches had long been burned. Still his active mind was concerned with the scientific issues of the day. He was in the habit of borrowing scientific papers from doctors of Boston. He had borrowed two volumes of "Philosophical Translations" from Dr. Douglas, a prominent Boston physician. Several articles therein gave account of the method and successful results of the treatment of smallpox in Turkey, Africa and neighboring countries by inoculating healthy individuals with the disease. This brought Reverend Mather to question his slave, Oresimus, who informed him that he had been successfully inoculated in Africa and that it was a common practice in his country.

Towards the end of April of that same year Boston for the sixth time was invaded by this dreadful disease, being brought in by a ship from the Tortugas. The population of the city was at that time approximately 11,000 people. After the epidemic the population was 10,567. The smallpox decumbitents had been 5,989, of whom 894 had died. The epidemic increased in severity throughout the fall and winter, until the following January, spreading in the meantime to several neighboring towns.

Cotton Mather was becoming very concerned over the fact that his two sons were liable to acquire the disease. He was quick to see the bearing of the articles written in "Philosophical Translations" upon the existing conditions. He prepared a letter to the physicians of Boston, giving an abstract of these communications and suggesting some action. Dr. Douglas was aggrieved that Mather, a clergyman, should borrow his books and select therefrom excerpts on medical subjects and recommend them to the physicians of Boston without consulting first the owner of the book. Before Douglas could call a meeting of the physicians and report, Dr. Boylston had been privately induced by Mather to make the trial. The epidemic was spreading rapidly. People, among others Mrs. Boylston, were leaving town to avoid the risk of contagion. The letter received from Reverend Mather must have had a very decisive effect on Dr. Boylston's conduct. It contained the following statement, "If upon mature deliberation you should think inoculation an advisable operation to be proceeded in, it may save many lives that we set a great value on." He was aware of the fact that by virtue of his occupation his household was especially ex-

posed to contagion. Intelligent, experienced, skillful, encouraged and supported by an influential citizen of the community, he undertook the experiment of inoculation on June 26, 1721. He could not inoculate himself, since he had suffered from smallpox some 19 years previously, but was so convinced of the merits of the operation that he inoculated his six-year-old son, Thomas, and two negro slaves of his household, one 35 years old and the other two years old.

Although twice called to account by those in authority, "The Selectmen of Boston," for continuing the practice, he inoculated his 13-year-old son on July 17, and four days later had seven inoculated patients under his care, whom he invited fellow physicians to see. The most prominent physicians at that time in Boston were Doctors Archibald, Clark, Cutler, Dalhonde, Davis, Douglas, Perkins, Williams and White. Dr. White was the only one of this group to accept the invitation. Dr. Dalhonde testified as to the ill effects of several deaths due to inoculation and a committee of the authorities drew up a series of resolutions based upon his testimony to condemn the practice. For a fortnight the inoculations were discontinued and then they were resumed in increasing numbers, despite the opposition of various doctors and town authorities. Dr. Boylston was supported by the leading clergymen of the town, who wrote "tracts" in his favor and distributed them freely about town. Some of the clergymen saw his patients and advised their parishioners to undergo the inoculation, and many of them were themselves inoculated.

According to Reverend Cotton Mather, "the town had become almost an hell upon earth. A city full of lies and murders and blasphemies as far as wishes and speeches could render it so; Satan seemed to take a strange possession of it in the epidemic rage against that notable and powerful and successful way of saving the lives of people from the dangers of smallpox."

As the epidemic increased in severity, so did the number of people that were inoculated. The better educated and the more intelligent people were in favor of the method, but people at large were in violent opposition.

The simultaneous introduction of inoculation against smallpox in England, although met with decided opposition, was not attended with such excitement and fear as it was in Boston. There is no evidence to warrant the belief that Boylston knew of the inoculations carried out the preceding April in London at Lady Mary Wortley Montague's instigation, a fact which lends still more honor upon the man under discussion.

The resistance of the fallacious beliefs and suspicions against inoculation were gradually broken, through the efforts of Dr. Boylston and his colleagues. Hutchinson, in his History of Massachusetts, states that in "1721 and '22 Dr. Boylston inoculated 247 persons against smallpox, and 39 were inoculated by others in Boston and vicinity. Of those inoculated, six died, but some of these were infected before having been inoculated. During the same period 5,759 had the disease, and 844 died, and many of those that recovered were left with broken constitutions and disfigured countenances."

Incredible persecution befell Dr. Boylston and his supporters. The newspapers, especially the New England Courant, edited by the Franklins, and even the legislature, were opposed to the practice of inoculation. There resulted one of the most heated pamphlets and newspaper wars ever waged in the United States until the twentieth century. Dr. Boylston was assaulted in the streets, attempts were made to burn his home, a bomb was thrown into the parlor of his house, through an open window where his wife and children were sitting, and during the peak of the excitement it was not safe for him to be seen upon the streets during the daytime, he being forced to visit his patients at midnight, and even in disguise. Feeling against him became so intense that he was forced to edit several pamphlets. These pamphlets were probably joint contributions, written by Mather with the material furnished by Boylston, yet they served their purpose by reporting the progress of the work on inoculation.

The practice of inoculation had become so well established that in the epidemic of 1728 and 1730, which was imported from Ireland, the Selectmen of Boston had changed their sentiments and recommended the use of this precaution to protect the inhabitants of their city. Of the physicians who had originally opposed inoculation, Dr. Williams entered upon its practice in the year 1730 "with the utmost of caution." He acknowledged that inoculated smallpox was

much more mild in its effects than when it was accidentally received. In the latter years of his life he became a more ardent advocate of the practice.

In 1752 another epidemic of smallpox occurred in Boston. Of the 15,734 people living in the city at that time, 1,800 fled through fear, and of the remaining number, 7,653 had smallpox, of which 2,109 were inoculated. The mortality among those not inoculated was nearly one in eleven, while of those inoculated one in 68.

Of Dr. Zabdiel Boylston, John Quincy Adams said in his inaugural oration, when installing Boylston professor of Rhetoric and Oratory at Johns Hopkins University, "a name which, if public benefits can impart a title to remembrance, New England will not easily forget; a name to the benevolence, public spirit and genuine patriotism of which this university, the neighboring metropolis, and this whole nation have long had, and still have, many reasons to attest; a name less distinguished by stations of splendor than by deeds of virtue; and better known to these people by blessings enjoyed than by favors granted: a name, in fine, which if not encircled with external radiance of popularity brightly beams with the inward lustre of beneficence."

The Boylstons were descendants of Dr. Thomas Boylston, who, at the age of 20 years, came to America in 1635 and settled at Watertown, Massachusetts. His son, Thomas, born in 1644, married Mary Gardner of Muddy River, then a part of Boston, and later set off as the town of Brookline. This Thomas was the earliest physician and surgeon of Muddy River. He died in 1695, at the age of 50 years. He is believed to have received his training in the Narragansett war, in which he took part. Thatcher makes a statement that he was a native of England and received his training from Oxford. In his married life of 30 years there were born 12 children, the sixth being Zabdiel, in whom we are particularly interested. Although other descendants of the first Thomas Boylston have through their benefactions and achievements been more immediately concerned with conferring popular distinctions upon the name, it is especially among physicians that the name and fame of Bolyston should be connected closest with the memory of the most meritorious physicians of his day in America. Zabdiel was a medical hero of service to all mankind, and his example should be forever memorable.

Zabdiel Boylston was born March 9, 1679. He was educated in medicine by his father and Dr. Cutler, a physician of some note in Boston. Little is known of his early life except that he was a most diligent worker and that as a youth he always acted much older than his chronological years. He was married on January 18, 1705, to Miss Jerusha Minot of Boston, a very attractive and sensible girl, and by this marriage there were born six children. In a few years of practice in Boston under very favorable circumstances, he arrived at great distinction and had accumulated a handsome fortune.

He had been led under the direction of his father to the study of botany and natural history, which he so successfully cultivated as to establish a correspondence with several learned societies and eminent individuals in England, especially Sir Hans Sloane, president of the Royal Society, who was later to become influential in bringing added distinction upon Dr. Boylston. In order to illustrate the subjects on which he wrote, Dr. Boylston spared no labor or expense in obtaining rare plants and animals, and through his efforts along this line he acquired considerable distinction as a naturalist.

It is intimated in a communication of the Boston News Letter of July 17, 1721, that Boylston was also a surgeon. Further evidence of his surgical ability appeared in "Providence Laws," but whatever may have been the other medical and surgical qualifications, they are wholly subordinate to his great work in the beginning and continuation of the inoculation for smallpox.

Boylston was invited by Sir Hans Sloane to come to England, since the former was then the inoculator with the largest individual experience, although his publications on the subject were few and brief. While in England, from 1724 to 1726, Dr. Boylston was honored by being introduced to the Royal Family, and he also received flattering attention and friendship of many distinguished characters. He was so well liked by all who met him that he was frequently solicited to settle in England, but through love for his fatherland declined all offers. Sir Hans urged him, while in England, to publish an account of his experiences, to

which Dr. Boylston gladly responded and presented his account to the Royal College of Physicians. His account showed that he had kept very careful records of everything he had done. In his paper, the results published were logically set forth and clearly tabulated, and the work was in every way a masterly clinical presentation, the first of its kind from an American physician. He was later made a member of the Royal College of physicians in July, 1726. Dr. Boylston had the paper which he had published in England reprinted after his return to Boston in October, 1726. Later, in the year 1730, he published a second "Historical Account."

Dr. Boylston had a strong and reflecting mind and acute discernment. His character was of unimpeachable integrity. He was charitable in his opinion of others and forgiving of his bitterest enemies. He was not disposed to dogmatize on any subject, but communicated his extensive knowledge in the most free manner. These qualities caused his society and friendship to be much sought.

Upon his return from England he resumed his practice, which was in great demand after the great reception he had received abroad. One individual stated in a letter that "Every practicioner gives him preference to Douglas, his old rival, in curing disease." Thus he lived to see inoculation well established and successful, and to know that he was recognized as one of the world's greatest benefactors.

In 1736 Dr. Bolyston bought the homestead of his brother Peter, once his father's. After its purchase he built a mansion which still stands in excellent condition and is now the residence of Mr. George Lee (1910).

It is known that he continued to practice medicine until past 70 years of age, since in the Boston Public Library is a certificate which he gave to a Thomas Fleet in November, 1752, stating that the physical disability of the latter was such as to prevent his being exposed as a watchman in bad weather. That library also possesses a receipt from him for medicines and attendance dated Boston, April 23, 1753. It is believed that he resided interruptedly in Brookline during this period. After retiring he devoted himself to the cultivation of his farm and the pursuit of his favorite studies (Botany and Natural Science). Among his agricultural occupations he displayed tremendous interest in improving the breed of domestic animals, especially horses. Thatcher states that at the age of 84 he was seen in Boston riding a thoroughbred colt which he was breaking.

His health was often interrupted by severe attacks of asthma during the last forty years of his life. He passed his last days with the dignity which ever accompanies those who have acted their part well in life. He met death with calmness and perfect resignation at the age of 87 years, enfeebled by age and disease, saying, "My work in this world is done and my hopes of futurity are brightened."

Inscribed on his tomb in the old cemetery at Brookline are the words, "Sacred to the memory of Zabdiel Boylston, Esq., Physician and Fellow of the Royal Society, who first introduced the practice of inoculation into America. Through a life of extensive benevolence he was always faithful to his word, just in his dealings, affable in his manners and after a long sickness in which he was exemplary of his patience and resignation to his Maker, he quitted this mortal life in a just expectation of a happy immortality on March 1, 1766."

The College of Cambridge has a medical department of 3,783 books founded in 1802 by Ward Nicholas Boylston, who gave a valuable collection of 1,100 books as a special tribute to his uncle Zabdiel.

OF GENERAL MEDICAL AND SURGICAL INTEREST

PERSONALITY RELATED TO SUSCEPTIBILITY TO DISEASE

Susceptibility to certain diseases goes hand in hand with certain types of personality, Dr. Walter Freeman of St. Elizabeth's Hospital, Washington, D. C., told members of the American College of Physicians at the Minneapolis meeting.

This fact, learned from 1,400 post-mortem examinations made at the government hospital for mental diseases, should help physicians treating patients who are not confined to such institutions, because personality types are the same inside and outside of these institutions. They are more exaggerated in patients inside the institutions, but Dr. Freeman told the assembled physicians methods and questions by which they might easily determine to which type their patients belonged.

Persons of the quiet, retiring personality type, who are given to day-dreaming and who are happiest living a routine existence, are especially apt to have tuberculosis, Dr. Freeman found. He called this type schizoid. Cancer was found most often and tuberculosis least often in the paranoid type; this is the type that is moody, grouchy, quarrelsome and suspicious. The cycloid type, who is the "good fellow," with hosts of friends and innumerable activities and interests, appears to be most susceptible to diseases of the heart, kidneys and blood vessels. The fourth type, the epileptoid, characterized by convulsions or sudden fits of temper or migraine, is most apt to have diseases in which the structures of the brain and glands of internal secretion are affected. Cancer, on the other hand, is a rarity in such individuals.

Dr. Freeman explained the relation between personality types and susceptibility to disease by the theory that a personality which will respond in a certain way to a psychological insult will respond similarly to a bacterial or chemical insult. The psychological insult may send the patient to a hospital for mental diseases, while the chemical or bacterial insult may send him to another hospital for the treatment of tuberculosis or heart disease.—Science Service.

OBESITY AND DIABETES

The following is an editorial which appeared in the *Journal of the American Medical Association.* Doubtless it has been read by a great many of our members. The subject, however, strikes us as of sufficient importance to reproduce the editorial in full, inasmuch as obesity appears to be on the increase in this automobile and machine age.

"Widespread interest in the manifestations of overweight, or obesity, in man belongs to comparatively modern times. A distinguished German clinician, the late Professor Ebstein, once grouped fat persons into three categories: those who inspire envy, those who occasion laughter, and those who call forth sympathy. An American colleague has added that fashions in this country are such today that the first group no longer exists. There have, of course, always been instances in which discomforts of undue bodily size awakened concern on the part of the obese and promoted measures for suitable relief. A more serious attitude has been developed in recent years by the publication of statistics gathered by life insurance actuaries indicating an apparent penalty for overweight.

"The experience of life insurance companies shows that weight, especially in relation to age, is an important factor in longevity. Of course, due regard must be had to the framework and general physical structure of the individual—to his natural "build." The lowest mortality is found among those who average, as a group, a few pounds over the average weight before age 35 and a few pounds under the average weight after age 35. That is, after the age of 35 overweight is associated with an increasingly high death rate and at middle life it becomes a real menace to health, either by reason of its mere presence as a physical handicap or because of the faulty living habits that are often responsible for its development.[1]

"The apparent relation of diabetes to obesity is another feature that has brought overweight within the realm of thought of many persons. In the presence of wasting disease or of undernutrition, diabetes is practically unknown. Persons who habitually overeat are especially prone to diabetes. Joslin, among many others, has been particularly insistent for many years that diabetes is largely a penalty of obesity. The warning has been broadcast widely. It seems to be substantiated by much statistical evidence. Perhaps, as has been suggested, in the next generation one may be almost ashamed to have diabetes. McLester[2] has pointed out that the relation of obesity to diabetes is probably not due to a similarity of metabolic disturbance, as was formerly thought, but rather to the fact that obesity leads to lipomatosis of the pancreas, which in turn is associated with a diminution of parenchymal tissue.[3] A further and perhaps more momentous inroad on national overweight is due to the fact that among women, at least, it is today stylish to be thin. This is in contrast to the days when 'high nutrition' was supposed to represent bodily fitness.

"The attempt to relegate obesity into the category of specific disease is now meeting with little favor. The storage of fat appears to be primarily a feature of metabolic bookkeeping—an indication of the favorable balance between energy intake and the actual requirement of food fuel. There are doubtless instances of physiologic anomalies or pathologic processes leading, as in some endocrine disorders, toward obesity. These are certainly in the small minority. As Taylor[4] recently pointed out, the body weight at any time after childhood (excluding disease) represents the balance of three factors: the amount of food ingested, the amount of body heat lost by radiation, and the amount of muscular work (and exercise) done.

"Living conditions of the present day have been conducive to the reduction of muscular work and exposure. Appetite has not declined accordingly; nor has the ready availability of food in a day of higher standards of living. The outcome is one that must be faced frankly. Taylor has summarized the situation convincingly:

> "There are instinctive impulses and physiological tendencies in the direction of overweight, which will prevail unless restrained or counteracted. We live in economic circumstances which permit an easy functioning of the influences making for overweight. The national income is rising. The proportion of the national income required to cover the retail cost of the food supply is relatively small. Foodstuffs are available in extraordinary variety and profusion. The per capita food requirement is declining. Economic restraint on eating is lacking except in the poorest classes. Under these circumstances, the probability of average overweight is increasing. Unless restrained, a decade hence the average overweight of people over forty will be significantly higher than it is today; the effect of overweight upon incidence of disease and upon the death rate will become more conspicuous. The solution does not lie in sports or physical exercise. Four factors are to be looked forward to as restraining influences: education in nutrition, medical precept, life insurance admonition, and style. And the greatest of these, probably is style."

PNEUMONOCONIOSIS: DELAYED DEVELOPMENT OF SYMPTOMS

JAMES A. BRITTON and JEROME R. HEAD, Chicago, call attention to the fact that most clinical and statistical studies of silicosis have been made on groups of men still employed in dusty trades. From such statistics one cannot say what is the late effect of short exposures. The authors report four cases of silicosis or silicosis and tuberculosis which developed many years after relatively short exposures. These instances suggest the necessity of revising the conception of the length of exposure necessary to produce the disease and make it seem probable that after relatively short exposures sufficient dust may be deposited in the lungs to set up a progressive fibrosis, which only after many years becomes sufficiently extensive to produce symptoms. They tend to indicate that men in the work develop symptoms only after many years of exposure, not because that length of exposure is necessary but because it takes a long time for the disease to develop.—*Journal A. M. A.*

THE JOURNAL

OF THE

Michigan State Medical Society

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SEPTEMBER, 1931

"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

—Francis Bacon

EDITORIAL

HISTORY OF SCIENCE A NEGLECTED SUBJECT

An interesting discussion of an international character took place in London recently when the International Science Congress became suddenly aware that history had not given scientific achievement due prominence. History has meant for the most part *political history,* and little attention has been paid to scientific contributions from time to time. Most historians refer to Newton as master of the mint, a minor political position he held during his lifetime, notwithstanding the fact that his contributions in the realm of physics and mathematics made possible discoveries that have revolutionized human society. The question arose as to the relative value to mankind of contributions of the scientist and those of the statesman. It can be said truthfully that every war that has darkened the pages of history is evidence of failure of statesmanship. Of recent years statesmanship in most civilized countries has stood helpless so far as meeting even a fair solution of the political and economic problems which are properly its field.

On the other hand many and perhaps the most perplexing problems statesmanship is called upon to solve, have arisen out of the contributions of science. The invention of the steam engine and the industrial revolution which affected all western countries have produced a condition which statesmanship has never been able to control, with all its juggling of tariffs and immigration laws and foreign trade. The invention of the steam engine in 1769 has set in motion a vast series of inventions that today promise to eliminate man to a very large extent from earning his daily bread by the sweat of his brow. Whether this situation in which we find ourselves today is good or bad is not the question. The fact is that science has not only affected our lives, but the lives of the most sequestered inhabitants of the earth are caught up in the maelstrom of scientific progress.

Medicine has played its part. Discoveries in medical science and their application to sanitation have resulted in the prolongation of life and thereby have increased the population of the world.

A notable contribution to the discussion regarding the relative importance of statesmanship and science was made by the Soviet delegates to the Congress. The position taken by Soviet historians was to the effect that scientists have been more important than statesmen in modern history, but that general social and economic forces have been immensely more influential than either. It should be evident to every thinking person that, directly or indirectly, social and economic problems of the present day grow out of the fact that we are living in a machine age.

Regarding the space given to scientific evolution in our histories, more may be expected from the present and the future historian than was given by historians in the past. The present day historian has adopted the scientific method. In the future, wars

will be written down as evidences of failure of statesmanship, and scientific achievement will be given its proper place in the annals of the nation.

A GYNECOLOGIC AND OBSTETRIC NUMBER

The present number of the Journal of the Michigan State Medical Society is largely devoted to obstetrics and gynecology, the papers read at the last annual meeting of the Michigan State Medical Society, at Benton Harbor. We have refrained in the past from devoting any single number of the Journal entirely to any particular department of medicine or surgery, the object being to publish a medical journal of general interest to the profession. The subject of obstetrics and gynecology is of such universal interest to the physician in general practice that no apology need be offered to that large group of our members. We might also include that these papers will appeal to the general surgeon as well as the physician devoting his time entirely to either gynecology or obstetrics. One of the number, that dealing with Roentgen Diagnosis in Gynecology and Obstetrics, will include the fairly large group of roentgenologists of the State.

We are sure that for once in the twelve months the otolaryngologist, ophthalmologist, internist, the urologist and the rest will forgive us for monopolizing the Journal with a field that is somewhat outside of their immediate interests.

MALPRACTICE

Services rendered to their members by the County and State Medical Societies are difficult to properly evaluate. There is one feature, however, that we will emphasize at this time, and that is the service rendered by the Medico-Legal Committee of the Michigan State Medical Society. As is well known, the Michigan State Medical Society will defend any of its members who may require such defense through to the supreme court. This feature alone is worth the fee for membership in the County and State Societies. The medical society, however, does not undertake to pay damages should the case be lost. This is a matter for an insurance company, of which there are many that assume such obligations for their policyholders. There seems to be a misunderstanding, however, in the minds of some members of the medical profession as to the meaning of the term *malpractice*. Malpractice means *mal*-practice or *bad* practice. The term is limited to charges of bad or incompetent practice of one's profession —nothing else. And here we might say that what is malpractice or bad practice from the viewpoint of the patient or client, as he becomes, may be perfectly good practice so far as medicine and surgery are concerned, though the final result may be far from what either patient or physician might desire. The results of treatment cannot and should never be guaranteed. There are certain accusations, however, which patients may and occasionally do bring against physicians that do not properly come under the heading of malpractice. We might mention one or two. First, breach of contract. The physician is engaged for a confinement. He accepts the engagement in good faith and renders service during the period of gestation, but when called to the confinement, he happens to be engaged, either attending an accident, another confinement or in a surgical operation—all necessary and good reasons for not being present. The obstetrician, however, should have an understanding with the family that in the case of his inability to be present at the confinement, another doctor designated by him should be called. A complaint is made and suit started because the doctor failed to put in an appearance when called. This is, strictly speaking, not malpractice or bad practice, and does not therefore come within the pale of medical defense. Again, a complaint may be made and suit entered into against a physician, which complaint might be brought against any man not a physician. Such, it goes without saying, does not properly come under the category of malpractice as defined. Another thing to be kept in mind is that physicians employed on salary at hospitals or by industrial corporations are personally responsible for their own defense in charges of alleged malpractice. Any other employee of a corporation not a hospital who does damage is personally free. The corporation can be sued. But in case of doctors, even though they may be giving their services free in a hospital or a free clinic as many of

them do, they are responsible for any act or proceeding in which the patient may prove damage.

The Chairman of the Medico-Legal Committee, to whom we submitted this editorial has suggested that we strongly impress upon the profession that they should never undertake to care for a fracture or suspected fracture or sprain without an X-ray examination. In fact, several should be made to check from time to time the progress of repair.

We again call attention to an editorial on the subject which appeared in this Journal in April, 1930, in which we quote at length from a letter from Mr. Barbour, the attorney for the Medico-Legal Committee of the Michigan State Medical Society.

Those who carry policies in regular medical protective insurance companies will do well to read their policies carefully so they may know clearly their rights under their policies.

ADDISON'S DISEASE*

The suprarenal glands were apparently not known to the ancient anatomists as no account of them is to be found in the medical records before the sixteenth century. The first account of the suprarenal glands we have is that of Bartholomaeus Sanctoseverinatus, better known as Eustachius in 1563. "I judged it agreeable in this place," said he, "to write on certain glands of the kidney negligently passed over by other anatomists. For in the upper part of the kidney these glandulæ cling. . . . Its (the gland's) substance and its shape scarcely agree with those of the kidney; although often depressed it may be so broad that it would seem rather to belong to the placenta than to the kidney; its length is two fingers wide and its thickness medium." He goes on to note the inequality in size between the right and left suprarenal. Piccolomini, who described them in 1586, regarded them as a kind of accessory kidney. A number of anatomists of the seventeenth century tried their hand at these mysterious bodies, chiefly guessing what their function might be. A hundred years ago the French anatomist Cailau declared that men of his day were no further advanced in regard to discovering the function of the suprarenal glands than clinicians were in the time of the famous Eustachius. Winslow described the suprarenal glands, their relation and blood supply in detail but did not attempt to determine their function. The early nineteenth century witnessed comparative anatomical studies on the suprarenals the credit for which is due chiefly to Meckel, who was one of the first to recognize the relation between glandular activity and general tissue metabolism. The histology of the gland was not described until 1848, when it was studied by Ecker, whose contribution consisted in recognizing a similarity of the structure of the suprarenals to that of secretory glands. He also described in detail the cortex and the medulla.

Addison's famous description was given in 1855. Six years before this he read a paper before the South London Medical Society on anemia and disease of the suprarenal capsules. His mature findings on the subject, according to Rowntree and Snell, form one of the greatest classics of English medicine. The monograph by Rowntree and Snell contains in full the original description.

Subsequent research has justified Addison's contention that the disease syndrome which bears his name is tuberculous in character but does not verify his belief that the causative factor is neoplasm. Rowntree and Snell have made a detailed study of 108 cases in which a positive diagnosis of Addison's disease was made, in 31 of which the diagnosis was confirmed by autopsy. The 108 cases were taken from the records of 696,789 patients who registered at the Mayo Clinic for a period of twenty-two years, or a ratio of 1 to 6,450 patients. The incidence of the disease has been constant from year to year. In spite of the tuberculous origin of Addison's disease patients rarely go to tuberculosis sanitariums for treatment. It is not often associated with tuberculosis, for, of ninety cases examined by the X-rays, active tuberculosis was found in ten cases and healed tuberculosis in eight.

This little monograph is an exhaustive study of Addison's disease and well worth serious study since it treats of the subject in all its known phases.

*A Clinical Study of Addison's Disease by Leonard G. Rowntree, M.D., and Albert M. Snell, M.D., Division of Medicine, the Mayo Clinic and the Mayo Foundation, Rochester, Minnesota. Illustrated. Price $4.00. Philadelphia & London, 1931. W. B. Saunders Company.

AUTOMOBILE ACCIDENTS

The re-registration of automobile drivers should afford an opportunity to eliminate careless and incompetent drivers. It is doubtful, however, whether the re-registering plan will result in any marked diminution of road accidents. An opportunity will be had to check up on vision, particularly color-blindness; but there are so many other factors which go into the making of a safe driver that nothing short of a neurological and psychiatric examination would eliminate the majority of the reckless drivers. When we consider that the average mental age of adults is about twelve years, too much should not be anticipated in any kind of re-examination. Often persons with demonstrable physical handicaps are much safer than many who present no demonstrable physical defect. The good driver is one who starts early and takes his time, not he who tries to make up for a late start by speeding. Many drivers have psychopathic personalities or suffer from psychoneurosis and are not aware of it. Others may have neurosyphilis or epilepsy in a small degree, which fact makes for careless driving.

A more effective examination would be to look into a person's habits for the purpose of eliminating the impulsive devil-may-care driver who goes along at full speed on slippery streets, whether icy or wet. It is important to investigate one's habits also so far as the customary observance of traffic regulations is concerned. In other words the good driver is always a cautious driver. He is the one who is not only careful of himself but protects others by seeing that his machine is fully insured so as to take care of any accident that might inadvertently happen even though not due to carelessness on his part.

THE X-RAYS IN GYNECOLOGY AND OBSTETRICS

In this number of the Journal will be found a paper by a gynecologist, Dr. Irving Stein, advocating the use of the X-rays as an aid in the diagnosis of gynecological conditions as well as in obstetrics. He deplores the neglect on the part of obstetricians and gynecologists of the use of this, which to him is a most important diagnostic aid. Many obstetricians have feared injuring the fetus in utero in the process of an X-ray examination. The employment of double screen technic and the use of duplitized films which reduce the exposure sometimes to not more than a second, the danger from radiation is practically eliminated. This technic combined with the use of the Bucky diaphragm, which is a device for the elimination of a large amount of scattered rays which tend to fog the X-ray plate, produces a most satisfactory result as a diagnostic factor.

Dr. Stein deplores the lack of precision in gynecological diagnosis which is often manifest by the listing of operations in hospitals as "exploratory laparotomy," "abdominal section," "pelvic inflammatory" or "pelvic tumor." Such preoperative diagnoses, he says, are not acceptable in a class A hospital. An abdominal section is not justifiable without a fairly accurate preoperative diagnosis. The same writer goes on to say that, "in the present high state of development of roentgenography a physician holds himself open to charges of malpractice for serious errors in diagnosis if he fails to avail himself of this source of information and thereby subjects his patient to unnecessary operative interference."

Among the roentgenological methods which may be used to advantage in gynecology and obstetrics may be mentioned the Rubin patency test in cases of sterility which consists of injection into the fallopian tubes of iodized oil as an opaque medium. The writer also gives his experiences with diagnostic pneumoperitoneum, a method of injecting air into the peritoneum cavity so as to bring the contents of the pelvic or peritoneal cavity into relief. With pneumoperitoneum he has been able to diagnose pregnancy as early as five or six weeks and to differentiate the condition from fibroids, ovarian cysts and tubal pregnancy. In many cases pregnancy may be ascertained by a straight X-ray exposure during the fourth month.

Then again stereoscopic roentgenograms are valuable in studying the bony pelvis. The obstetrician is able to estimate the relative contraction or deformity of the pelvis.

No roentgenologist would claim infallibility or one hundred per cent efficiency for the X-ray method of diagnosis. Where, however, the pathology manifests itself in a variation in density of the tissues or organs, this method should be by all means included

along with others in our attempts to ascertain the nature of the pathology present.

According to the report of the children's bureau of the Department of Labor, forty million dollars were expended for relief of needy families in one hundred American cities during 1930. Approximately half of this huge sum was spent in Detroit alone.

FAUGHT TAE A FINISH

Man! bit we're haein' an awfu' time settlin' oop th' auld warld war.

Thae folk over there are no learnin' ony lessons frae th' experience o' th' auld Scottish clans. In thae days if a fecht started they faught tae a finish. There wis nae foolin' roon aboot it. There wis nae armistice. When th' last man wint doon th' war wis o'er an' th' spoils settled a' th' bills. When it wis a' finished th' sodgers sat doon tae their porridge then ga'ed awa back tae their ain hames.

A'm thinkin' th' noo, if they dinna settle this war soon ah'll hae tae gang o'er tae th' auld countrae an' pit them a' back intil th' trenches where they were in 1918 an' tell them tae finish their fecht. Aye, an' if ah hae tae dae that thing, ye can depend on ma word that ah'll mak them pay cash for their pooder.

We ken noo, that there is only twa or three or perhaps fower wy's o' rinnin' a' war. Th' best wy is tae hae inither countrae dae th' fechtin' an' pay th' bills. Ye see, ye dinna hae tae pay ony pensions if ye rin yer war by proxy an' that saves a lot o' monie.

Inither wy, an' this is ma ain original wy, is tae pit a' th' kings an' queens an' pawns an' politicians in th' front line trenches tae gi' them honor, then pit a' oor sodgers an' marines intil th' second line trenches tae support them. Ye see, we hae tae support them ony wy, an' this is as guid a wy tae support them as ony ah can think o' th' noo. We wid then hae a' oor fairmers an' factory warkers at hame tae stop ony body frae signin' an armistice, or playin' A.W.O.L. frae th' front line trenches. We wid hae oor banks an' bankers, clarks tae collect cash for a' th' pooder an' bullets oor front line wid be coostin' awa o'er tae th' enemy. Aye, an' inither suggestion: ah wid hae a' oor printers divils an' cooboys, occasionally fly o'er oor front line trench an' whiles drap a few itch mites tae th' folk there tae gi' them a little encouragement tae gang o'er th' top.

Noo, ah mist tell ye o' inither wy tae rin a war, a better wy than ony ither. It is tae no hae ony war at a', at least no till aifter th' armistice is signed. Ye ken ye hae tae sign an armistice ony wy, sae ye micht as weel sign it first an' save monie. Aye, an' ye'll nae be needin' ony sodgers or ta'en awa frae their wark thae young chaps wha th' lassies o' th' countrae are in luve wi'.

Of course ah dinna care personally, hoo ye rin yer ain war, bit a'm tellin' ye that ye'll be better aff tae rin it on a cash an' carry basis.

Ah weel, its a bonnie nicht th' nicht,
Guid nicht.

WEELUM

THOU SLUGGARD, KEEP AWAY FROM THE ANT

(Manchester Guardian)

The Royal Society of Sluggards ought to make Sir J. Arthur Thomson an honorary member and present him with a richly inlaid bedroom suite in return for his valuable remarks about the ant at the annual dinner of the Eugenics Society. Anyone with half an eye can see that the ant is a nasty little acquisitive insect whose example is wholly unsuitable for representatives of an enlightened civilization, and Solomon's advice on this subject has made all the moral running for far too long. Now Professor Thomson has exposed the creature; it makes war, it acquires slaves, its family life is simply dreadful, and obviously its habit of food-hoarding would be condemned by any responsible economist of today. Sluggards are quiet and altruistic gentlemen in comparison with this energetic little brute, which would be up before the insect League of Nations for oppressing subject nationalities if there were any such body known to entomology.

To tell inoffensive idlers to "go to the ant" is like advising them to model their behaviour on slave-traders and war-mongers, whereas by quietly consuming without producing they must be striving most usefully to adjust the world's balance of trade. It was high time that the ant was presented as an awful warning instead of a pious example—a thoroughly ugly customer both in appearance and behaviour.

THE OATH REQUIRED OF CANDIDATES FOR MEMBERSHIP IN THE AMERICAN COLLEGE OF PHYSICIANS

". . . I PLEDGE *myself . . . to consider ever primary to my own, the welfare of patients dependent upon my professional knowledge and skill; ever to respect the interests and reputations of my colleagues; as occasion requires, to supplement my own judgment with the wisdom and counsel of competent medical specialists; to render my assistance willingly to my colleagues; to extend freely my professional aid to the unfortunate, the poor and the needy; to advance steadily in knowledge by the reading of authoritative medical literature, by attendance at important gatherings of medical men, by postgraduate instruction from men of eminence and position, and by the free interchange of experience and opinion with my associates.*

"Further, I promise, in so far as in me lies, to shun the public press or public gatherings of laymen where my attitude might be regarded as seeking self-advancement; to avoid selfishness and commercialism in my professional practice; to influence patients to appreciate their financial responsibilities to their medical advisers; to adjust my compensation to the circumstances of my patients and to make such charges commensurate with the services rendered and to avoid discrediting my profession by seeking unwarranted compensation. . . ."

A SONG OF THE POWER OF MAN

"Of all strong things none is more wonderfully strong than man. He can cross the wintry sea, and year by year compels with his plough the unwearied strength of Earth, the oldest of the immortal gods. He seizes for his prey the aery birds and teeming fishes, and with his wit has tamed the mountain ranging beasts, the long maned horses and the tireless bull. Language is his, and wind-swept thought and city-founding mind; and he has learned to shelter himself from cold and piercing rain; and has devices to meet every ill but Death alone. Even for desperate sickness he has a cure, and with his boundless skill he moves on, sometimes to evil, but then again to good."

—From the *Antigone of Sophocles.*

GENERAL NEWS AND ANNOUNCEMENTS

Dr. Wynand D. Pyle, formerly of Detroit, is ship physician on the Vollendam of the Holland-American steamship lines, plying between New York and Rotterdam.

The Detroit Welfare Commission have proposed a fee of $10.00 to defray the expense of confinement in the homes of the indigent poor. This fee is presumed to reimburse the doctor and to eliminate the necessity of hospitalization for confinements conducted in the homes. It represents an effort towards further civic economy.

The joint yearly meeting of the Mississippi Valley Conference on Tuberculosis and the Mississippi Valley Sanatorium Association will be held at the Lowry Hotel in St. Paul, September 21, 22, and 23. Michigan is one of the participating states. This double conference gathers together medical experts in tuberculosis, public health and social workers interested in the anti-tuberculosis movement from twelve Mississippi Valley States. Three days of intensive study on medical and medico-sociological subjects characterize the program.

POST GRADUATE STUDY OF HEART DISEASES

A rare opportunity in post graduate study of heart diseases is furnished by The Fourth Annual Graduate Fortnight of the New York Academy of Medicine, the dates being October 19 to 30, 1931.

The leading cardiologists of the East, with Sir Thomas Lewis of London, will have afternoon clinical demonstrations and evening papers.

The profession generally is invited to attend; no fees fill be charged for attendance at clinics or meetings of the Fortnight. Programs and registration blanks are now available and may be secured by sending to the headquarters of the New York Academy of Medicine, 2 East 103rd Street, New York City.

The United States Civil Service Commission announces an open competitive examination for Physician (Cancer). Applications for the position of physician (cancer) must be on file with the U. S. Civil Service Commission at Washington, D. C., not later than September 4, 1931. The examination is to fill a vacancy in the Veterans' Administration, for duty at Hines, Illinois. The entrance salary is $3,800 a year. Competitors will be rated on their education, training, and experience. Applicants must have been graduated from a Grade-A medical school within twenty years of the date of the close of receipt of applications, and must have had at least three years of postgraduate experience in the practice of medicine, including at least one year in the diagnosis and treatment of malignant diseases, involving the use of radium and radium emanation, the histopathology of tumors, and clinical or laboratory research. Full information may be obtained from the Secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city or from the United States Civil Service Commission, Washington, D. C.

DEATHS

DR. GEORGE S. TWEEDIE

Dr. George S. Tweedie, the oldest practicing physician in Sanilac County and one of the early settlers of Sandusky, died at his home July 23, at the age of 70 years, after an illness of four weeks. Dr. Tweedie was serving his sixth term as mayor of Sandusky. During his 45 years of service to the public he had been president, secretary and treasurer of the Sanilac County Medical Society, member of the American Medical Association, member of the State Medical Society, and had just retired from the United States Pension Board, of which all members retire at the age of seventy. Dr. Tweedie was born May 17, 1861, at Tilsonburg, Ontario. At the age of eighteen he entered college at Chatham, Ontario, and later entered the Detroit College of Medicine, graduating from that college in 1886. In March of the same year he went to Sandusky to practice medicine and resided there continuously until his death. In 1887 he was united in marriage to Serena Allen, who died a few years later. On June 8, 1898, he married Winnifred Evans of Sandusky, who with one daughter, Mrs. James Graham, of Detroit, and two sons, Dr. G. Evans and Dr. S. Martin Tweedie, of Sandusky, survive. He is also survived by four sisters, Mrs. Charles Livingston, of Potlach, Washington, Mrs. Margaret Tassie and Miss Minerva Tweedie, of Toronto, Ontario, and Mrs. Roger Haward, of Montreal, Ontario; also two brothers, Gilbert Tweedie of Snohomisk, Washington, and Charles Tweedie of Toronto, Ontario.

CORRESPONDENCE

Dr. George E. McKean,
1551 Woodward Ave.,
Detroit, Michigan.
Dear Dr. McKean:

I want to thank you for your very graceful tribute to Dr. Warthin in the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY for July. Especially to thank you for introducing my name.

I have not yet recovered from the shock of Dr. Warthin's death. I had no idea he was having symptoms until the news of his first severe attack reached me. Then I received a letter from him written the day before he died, and also got the autographed copy of his last book, I think the only one he had time to autograph.

I am glad to hear from time to time about your continued activity, and if you ever take a vacation, hope you will visit California and give me the pleasure of seeing you. With kindest regards,

Yours sincerely,
GEORGE DOCK.

Dr. McKean was the writer of the editorial on Dr. Warthin which appeared in the July number of the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY.—EDITOR.

Official Program

111th Annual Meeting--Michigan State Medical Society, Pontiac, Mich., September 22, 23 and 24, 1931

Celebrating the 100th Anniversary of the Oakland County Medical Society

OFFICIAL CALL

The Michigan State Medical Society will convene in annual session in Pontiac on Sept. 22, 23, 24, 1931. The provisions of the Constitution and By-Laws and the official program will govern the deliberations and business of this annual session.

R. C. STONE, *President*
B. R. CORBUS, *Chairman Council*
H. J. PYLE, *Speaker*

Attest:
F. C. WARNSHUS, *Secretary*

DAILY SCHEDULE

Sept. 21—COUNCIL SESSION
4:00 P. M.—Hotel Waldron.
Sept. 22—MASONIC TEMPLE
10:00 A. M.—House of Delegates.
2:15 P. M.—House of Delegates.
7:30 P. M.—House of Delegates.
9:30 P. M.—Entertainment.
Sept. 23—
9:15 A. M.—Scientific Sections.
1:30 P. M.—Scientific Sections.
7:30 P. M.—General Session.
Sept. 24—
9:15 A. M.—Scientific Sections.
1:30 P. M.—Combined Section Meeting.
7:30 P. M.—General Session.

MEETING PLACES

MASONIC TEMPLE:
Registration and Information.
Commercial Exhibits.
Scientific Exhibits.
Dermatology and Syphilology.
Gynecology and Obstetrics.
Ophthalmology and Otology.
Pediatrics.
1ST BAPTIST CHURCH
Surgery.
1ST PRESBYTERIAN CHURCH
Medicine.
Combined Section Meeting.
Health Exhibits.
TABERNACLE:
General Session—Wednesday.
General Session—Thursday.

HOTELS

WALDRON—$3.00 to $8.00.
Officers and Delegates.
HELDENBRAND—$2.00 to $9.00.
ROOSEVELT—$1.50 to $5.00.
LOCHAVEN COUNTRY CLUB—$2.50 to $3.50.
DR. CLIFFORD T. EKELUND
906 Riker Bldg., Pontiac
Chairman of Committee on Hotels

HOUSE OF DELEGATES

Place: Masonic Temple.
Time: 10:00 A. M., September 22.
Speaker: H. J. Pyle, Grand Rapids.
Secretary: F. C. Warnshuis, Grand Rapids.

ORDER OF BUSINESS

1. Call to Order.
2. Report of Committee on Credentials.
3. Roll Call.
4. Minutes.
5. Speaker's Address—H. J. Pyle.
6. President's Address—R. C. Stone.
7. President-elect's address—C. F. Moll.
8. Annual Report of Council.
9. Appointment of Reference Committees.
   Business.
   Officers' Reports.
   Council Reports.
10. Election of Nominating Committee.
    NOTE: No two members from one Councilor District shall be elected to the Nominating Committee.
    Duties of Nominating Committee:
    (*a*) Act as Tellers.
    (*b*) Nominate A. M. A. Delegates to succeed: Carl F. Moll (term expired); alternate, W. J. Cassidy (term expired).
    (*c*) Place of next annual session.
11. Reports of Committees:
    (*a*) Civic and Industrial Relations.
    (*b*) Cancer Committee.
    (*c*) Delegates to A. M. A.
    (*d*) Legislative Committee.
12. Resolutions and New Business.
13. Recess.

SECOND SESSION
2:30 P. M.

14. Roll Call.
15. Report of Reference Committees
16. Unfinished Business.
17. New Business.

THIRD SESSION
7:30 P. M.

18. Roll Call.
19. Report of Reference Committees.
20. Elections:
    (*a*) President-elect
    (*b*) Report of Nominating Committee.
    (*c*) Place of Meeting.
    (*d*) A. M. A. Delegate and Alternate.
    (*e*) Councilors.
        NOTE: Nominations are made by delegates of each District:
        1. Fourth Dist., C. E. Boys (term expires).
        2. Fifth Dist., B. R. Corbus (term expires).
        3. Sixth Dist., Henry Cook (term expires).
    (*f*) Speaker.
    (*g*) Vice-Speaker.
21. Unfinished Business.
22. Adjournment.

FIRST GENERAL SESSION

Time: Wednesday, September 23, 7:30 P. M.
Place: Tabernacle.

1. Invocation: Rev. Bates G. Burt.
2. Welcome Address: L. A. Farnham, M.D., President, Oakland County Medical Society.
3. Announcements.
4. In Memoriam:
   Memorial Record—The Secretary.
5. President's Annual Address—R. C. Stone, M.D., Battle Creek.
6. Address—Governor Wilber M. Bruchner.
7. Introduction of President-elect—Carl F. Moll, M.D., Flint.
8. Adjournment.

SECOND GENERAL SESSION

Time: Thursday, September 23, 7:30 P. M.
Place: Tabernacle.

1. Introduction—President Oakland County Medical Society—L. A. Farnham, M.D.
2. Announcement of prizes for Public Competition—F. A. Baker, M.D.
3. Address: "Border Frontiers of Medicine"—Morris F. Fishbein, M.D., Chicago, Editor Journal American Medical Association.
4. Adjournment.

DELEGATES TO ANNUAL MEETING*[1]

Alpena County—14
E. L. FOLEY
A. R. Miller

Antrim-Charlevoix-Emmet-Cheboygan—20
D. C. BURNS
F. F. Grillet

Barry—12
C. P. LATHROP
H. A. Adrounie

Bay-Arenac-Iosco—60
CHARLES W. ASH
H. P. Lawrence

Berrien—30
W. C. ELLET
L. M. Rutz

Branch—12
SAMUEL SCHULTZ
R. L. Wade

Calhoun—99
C. S. GORSLINE
A. T. HAFFORD
W. L. Godfrey
A. D. Sharp

Cass—11
W. C. McCUTCHEON
S. L. Loupee

Chippewa-Mackinac—13

Clinton—13
F. E. LUTON
W. A. Scott

Delta—21
J. K. PARISH
John Towey

Dickinson-Iron—18

Eaton—15
PHIL QUICK
K. A. Anderson

Genesee—125
J. T. CONNELL
G. J. CURRY
F. E. REEDER
H. E. Randall
J. W. Orr
B. E. Burnell

Gogebic—17
ELWOOD TEW
S. R. Rees

Grand Traverse-Leelanau—25
E. F. SLADEK
S. P. Smiseth

Gratiot-Isabella-Clare—26
T. J. CARNEY
W. G. Young

Hillsdale—20
D. W. FENTON
G. R. Hanke

Houghton-Baraga-Keweenaw—41
ALFRED LA BINE
K. C. Becker

Huron—8
W. B. HOLDSHIP
A. J. Howell

Ingham County—83

Ionia-Montcalm—34
P. C. ROBERTSON
L. E. Bracey

Jackson—68
PHILIP RILEY
J. J. O'MEARA
C. S. Clarke
H. A. Brown

Kalamazoo-Allegan-Van Buren—121
F. T. ANDREWS
A. A. McNABB
John Rickert
D. C. Rockwell

*Delegates names appear in capital letters; alternates in small letters.
[1]Numbers opposite County names indicate number of paid members.

Kent—167
A. V. WENGER
R. H. DENHAM
W. E. WILSON
J. D. BROOK
G. H. SOUTHWICK
A. M. Moll
E. N. Nesbitt
E. W. Schnoor
C. F. Snapp

Lapeer—24
C. M. BRAIDWOOD
H. B. Zemmer

Lenawee—32
C. H. WESTGATE
E. C. Raabe

Livingston—11

Luce—9
H. E. PERRY
E. H. Campbell

Macomb—32
J. N. SCHER
W. J. Kane

Manistee—14
A. A. McKAY
H. D. Robinson

Marquette-Alger—32
VIVIAN VANDEVENTER
Alfred W. Hornbogen

Mason—8
E. G. GREY
L. W. Switzer

Mecosta—20
L. K. PECK
B. L. Franklin

Menominee—12
EDWARD SAWBRIDGE
R. A. Walker

Midland—9
JOSEPH H. SHERK
W. D. Towsley

Monroe—30
S. J. RUBLEY
P. D. Amadon

Muskegon—67
F. W. GARBER, Sr.
C. J. Bloom

Newaygo—10
A. C. TOMPSETT
H. R. Moore

Oakland—85
C. T. EKELUND
F. A. MERCER
B. M. Mitchell
J. S. Lambee

Oceana County—7
J. H. NICHOLSON
A. R. Hayton

Otsego-Montmorency-Crawford-Oscoda-Roscommon-Ogemaw—11
CLAUD R. KEYPORT
L. A. Harris

Ontonagon—6
C. S. WHITESHIELD
E. J. Evans

Ottawa—27
A. E. STICKLEY
S. L. De Witt

Saginaw—68
O. W. LOHR
A. E. Leitch

Sanilac—6
S. M. TWEEDIE
C. G. Robertson

Schoolcraft—4
A. R. TUCKER
George A. Shaw

Shiawassee—28
I. W. GREENE
W. E. Ward

St. Clair—43
A. L. CALLERY
T. E. De Gurse

St. Joseph—12
C. G. MORRIS
J. V. Blood

Tuscola—24
JOHN G. MAURER
J. MacKenzie

Washtenaw—107
THERON S. LANGFORD
JOHN WESSINGER
George Muehlig

Wayne County—1086
J. M. ROBB
L. J. HIRSCHMANN
FRANK A. KELLY
H. W. PLAGGEMEYER
RICHARD M. McKEAN
JOHN L. CHESTER
JAMES E. DAVIS
GROVER C. PENBERTHY
ANDREW P. BIDDLE
E. D. SPALDING
C. E. DUTCHESS
CHARLES S. KENNEDY
JOSEPH H. ANDRIES
NORMAN M. ALLEN
WM. J. STAPLETON, Jr.
G. VAN AMBER BROWN
CLYDE K. HASLEY
BERT U. ESTABROOK
NORMAN E. CLARKE
BASIL L. CONNELLY
T. K. GRUBER
A. E. CATHERWOOD
WM. S. REVENO
HENRY A. LUCE
L. BYRON ASHLEY
W. L. HACKETT
C. F. McCLINTIC
CHARLES LAKOFF
J. D. CURTIS
L. J. GARIEPY

Wm. P. Woodworth
Leslie T. Henderson
A. H. Whittaker
Frank Kilroy
E. C. Baumgarten
L. O. Geib
C. J. Barone
A. J. Himmelhoch
Daniel P. Foster
D. J. Leithauser
Louis J. Morand
F. C. Witter
H. B. Garner
J. R. Rupp
A. E. Nayler
Wm. H. Honor
Wm. J. Cassidy
D. S. Brachman
Wm. N. Braley
Frank S. Perkin
Don A. Cohoe
Susanne Sanderson
F. B. Wight
V. L. Van Duzen
F. Janney Smith
Wm. E. Johnston
C. L. Candler
Ronald P. Reynolds
Louis Klein
Nelson McLaughlin

SCIENTIFIC SECTIONS

Section on General Medicine

Chairman: MILTON R. SHAW, Lansing.
Secretary: I. W. GREENE, Owosso.

MORNING SESSION

Wednesday, September 23—9:15 A. M.

1. Chairman's Address — "Agranulocytosis"—Case report—Dr. Milton R. Shaw, Lansing.

2. "The Treatment of Pernicious Anemia in the Light of Recent Discovery"—Dr. Cyrus Sturgis, Ann Arbor.

   Characteristics of pernicious anemia patients; achlorhydria and changes in the chemistry of gastric digestion; relation between the stomach defect and development of red blood cells; the nature of the action of liver therapy; the rationale of Ventriculin; its mechanism of action; effect on patients with pernicious anemia; change in red blood cell count; change in weight; subjective symptoms; dosage; practical points in the treatment of pernicious anemia.

3. "Neurological and Psychopathic Manifestations of Pernicious Anemia"—Dr. Charles Kiely, Cincinnati, Ohio.

   The almost unfailing regularity of the tracts involved when pernicious anemia is accompanied by cord lesions has been a source of interesting speculation. Lasting remissions in the anemia with heliotherapy have not been accompanied by arrest of these degenerations, proving that the nervous lesions are not the primary cause of anemia. That they are probably a result is attested by the occurrence of identical lesions in grave anemias not of the pernicious type. The recognition of pernicious anemia as a deficiency disease held in check by some unknown constituent of liver and the stomach mucosa seems to justify the conclusion that the cord lesions are secondary to the anemia, as the former are now seen to recede completely when the nature of the underlying blood disease is recognized early. The well established rule that tissue of the central nervous system cannot regenerate is borne out. The new forms of therapy give promise of prevention of the nervous lesions by arresting the primary disease before nerve damage has become irreparable.

Dr. Charles E. Kiely received the degree A.B. at St. Xavier College, Cincinnati, Ohio, 1906; A.B., Harvard University, 1909; M.D., University of Cincinnati, 1913. His interneships were served in the Cincinnati General Hospital, Neurological Institute of New York, and Manhattan State Hospital for the Insane. He was Fist Lieutenant Medical Corps in charge of the ward for the shell shocked, Allerey, France. He is Assistant Professor of Psychiatry, Medical Department, University of Cincinnati; Assistant Director Psychiatric Service, Cincinnati General Hospital; Neuropsychiatrist, Christ Hospital, Cincinnati, and St. Elizabeth Hospital, Covington, Ky.; Consultant Phychiatrist to the Branch Hospital for Tuberculosis, Cincinnati, Ohio; Attending Psychiatrist, Cincinnati Sanitarium, College Hill, Cincinnati, Ohio, and is a member of the Cincinnati Academy of Medicine, Ohio State Medical Association, American Medical Association, Central Neuropsychiatric Association, and American Psychiatric Association.

DR. KIELY

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4. "Secondary Anemias"—Dr. Charles H. Watkins, Mayo Clinic.

   The diagnosis of various types of secondary anemia will be discussed with respect to clinical manifestations and morphological features of the blood. In the light of the diagnosis, an evaluation of the efficacy of different methods of treatment will be attempted.

Dr. Charles H. Watkins was born July 20, 1899, at Etna, Ohio. He attended the Ohio State University and the Medical School University of Minnesota, receiving the degrees of B. A., B. S., M. A., M. B., M. D., Ph.D. He interned at the University of Minnesota Hospital in Minneapolis. He entered The Mayo Clinic as first assistant in Medicine and is now an associate in the Division of Medicine and instructor in medicine, The Mayo Foundation. He is a fellow of the American Medical Association, and is a member of the Minnesota State Medical Association, Central Society for Clinical Research, Sigma Xi, Alpha Omega Alpha, Alpha Kappa Kappa, and Delta Tau Delta.

DR. WATKINS

5. "New Aspects of Symptoms, Diagnosis and Treatment of the Leukemias"—Dr. Raphael Isaacs, Ann Arbor.

The neoplastic nature of the disease; types of blood cells affected; leukemic and aleukemic states; aids in diagnosis; symptomatology, the cause of the symptoms and their relation to the peripheral blood picture; use of roengen rays, radium, arsenic, Lugol's solution, blood transfusion, iron, liver, liver extract, and Ventriculin; prognosis. (Lantern Slides.)

AFTERNOON SESSION

Wednesday, September 23—1:30 P. M.

1. "The Significance of Circulatory Disturbance in Certain Psychoses"—Drs. Theophil Klingman and H. S. Millett, Ann Arbor, Michigan.

A survey of 200 case records of psychotic patients at the age of 40 and up revealed to the authors the fact that it was possible to group them into four organic syndromes as follows: (1) Endocrine, (2) Cardiovascular renal, (3) Pulmonary, (4) Gastro-intestinal. Both subjective symptoms are taken into consideration. The secondary group is discussed in this essay.

2. "The Present Status of Epidemic Encephalitis"—Drs. Fred P. Currier and David B. Davis, Grand Rapids.

The paper presents a brief and concise review of the history and etiology of epidemic encephalitis. The authors will present a summary of one hundred and twenty-five cases of their own, including the results of, and experiences with, treatment. A moving picture demonstration of the unusual cases will occupy five minutes of the allotted time for this paper.

3. "Undulant Fever" (Brucelliasis)—Dr. Walter M. Simpson, Dayton, Ohio.

The recognition of undulant fever as a common and widely distributed disease of man is largely a development of the past three years. Over 2,000 cases of undulant fever, occurring in every state of the Union, have been recorded by state health departments during the past two years. This paper will be based upon clinicopathologic study of 128 cases of undulant fever which have been encountered in Dayton and the surrounding communities.

4. "Treatment of Diabetic Acidosis and Coma"—Drs. D. P. Foster, Wm. L. Lowrie, F. MacDonald.

The treatment of diabetic acidosis and coma demands emergency measures. The underlying principle is the reestablishment of normal body reactions by the use of liberal amounts of carbohydrates, insulin, and fluids. The detail and technic of applying this principle is outlined. A chart to facilitate the immediate recording of all laboratory and clinical data is shown. Charts illustrating the results of treatment are shown.

Election of Chairman.

MORNING SESSION

Thursday, September 24—9:15 A. M.

JOINT MEETING OF MEDICAL AND DERMATOLOGICAL SECTIONS

1. "Visceral Syphilis" — Dr. Paul A. O'Leary, Mayo Clinic.

2. "Tularemia"—Dr. Walter M. Simpson, Dayton, Ohio.

Tularemia probably occupies a unique position in medical history because of the rapidity with which it has evolved from the obscurity of a clinical curiosity to the prominence of an important public health problem. Six years ago tularemia was practically an unknown name in the medical literature; reports of about 15 cases had appeared up to that time. Tularemia has now been recognized in all but five of the states in the Union. The recognition of the widespread incidence of the disease in Soviet Russia, Japan, and Norway indicates that the disease is probably world-wide in its distribution. While wild rabbits constitute the most important reservoir of infection for other wild animals and man, new animal hosts and insect vectors have been discovered. This paper will be based upon a summary of recent investigations and a consideration of the Dayton experience with 88 cases.

Dr. Walter M. Simpson received the degree Bachelor of Science, University of Michigan, 1922; Master of Science (in Pathology) University of Michigan, 1923; Doctor of Medicine, University of Michigan, 1924. He was teaching assistant in Anatomy and Histology, University of Michigan, 1920 to 1922; teaching assistant in Pathology, University of Michigan, 1922 to 1923; instructor in Pathology, University of Michigan, 1923 to 1924; senior instructor in Pathology, University of Michigan, 1924 to 1926; instructor in Surgical Pathology, Johns Hopkins Hospital, 1926 to 1927, and has been director, Diagnostic Laboratories, Miami Valley Hospital, Dayton, Ohio, 1927 to date.

DR. SIMPSON

Dr. Simpson was awarded a gold medal by the American Medical Association at Minneapolis, Minnesota, 1928, for research in tularemia.

He was the first recipient of the Ward Burdick Research Award (gold medal) given by the American Society of Clinical Pathologists, 1929, Portland, Oregon, for researches in tularemia and undulant fever.

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3. "A Few Skin and Mucous Membrane Lesions of Interest to General Medicine"—Dr. G. H. Belote, Ann Arbor.

Section on Surgery

Chairman: GROVER C. PENBERTHY, Detroit.
Secretary: GEORGE J. CURRY, Flint.

MORNING SESSION

Wednesday, September 23—9:15 A. M.

1. Chairman's Address—Dr. Grover C. Penberthy, Detroit.

2. "Surgical Lesions of the Large Bowel"—Dr. Fred W. Rankin, Rochester, Minnesota.

The past decade has seen enormous increase in diagnostic efficiency, some advantageous technical maneuvers developed and a better understanding of the

symptomatology of organic lesions of the gastro-intestinal tract. This paper deals mainly with the diagnosis and treatment of malignancy of the large bowel and of diverticulitis.

Discussion—Dr. L. H. Hirschman, Detroit; Dr. Herbert E. Randall, Flint.

3. "Primary Ileostomy in the Treatment of Generalized Peritonitis"—Dr. E. C. Baumgarten, Detroit.
Discussion—Dr. C. D. Brooks, Detroit; Dr. R. C. Stone, Battle Creek.

4. "Carcinoma of the Stomach with Special Reference to Early Diagnosis and Operability"—Dr. Henry K. Ransom, Ann Arbor.

Carcinoma of the Stomach: An analysis of a group of patients with carcinoma of the stomach with special reference to early diagnosis and operability. A discussion of results following different types of operation. Partial gastrectomy as a palliative operation gives results that are much better than any other type of operation with a lower postoperative mortality. A plea for earlier complete examination and radical operation.

Discussion—Dr. George A. Seybold, Jackson; Dr. Roy D. McClure, Detroit.

AFTERNOON SESSION

September 23—1:30 P. M.

5. "Infantile Paralysis"—Dr. F. C. Kidner, Detroit.

Resume of the latest method of diagnosis and treatment in the acute disease.
Some of the surgical aspects of the treatment in late cases as regards deformity and residual paralysis.

Discussion—Dr. John T. Hodgen, Grand Rapids; Dr. Carl E. Badgley, Detroit.

6. "The Conservative Operative Treatment of Hydronephrosis"—Dr. John K. Ormond, Detroit.

There are two criteria of success of treatment—first, relief of symptoms, and second, preservation or restoration of function. In the case of hydronephrosis, only the first requirement is met by nephrectomy; but in suitable cases, certain plastic operations on the ureter meet both.

Discussion — Dr. Alvin Thompson, Flint; Dr. Robert E. Cumming, Detroit.

7. Observations of Twenty Years in Brain and Spinal Cord Surgery"—Dr. Wm. J. Cassidy, Detroit.

1. The imperative necessity of the general surgeon to keep thoroughly abreast of the tried and true diagnostic and surgical technical features of nervous system. 2. The tremendous expansion of cerebro-spinal field demanding of the specialist the ever widening recognition of living pathology anatomica; especially the surgery of the sympathetic nervous system which is so markedly in the lime-light at the present time. He must be an able thoracic and abdominal surgeon of the Nth. degree to attain minimum morbidity and mortality rates.
Traumatic, cranio-cerebral surgery, evaluations of past surgical indications and technical features, the present-day changes for improvement in diagnosis and treatment of brain trauma with hemorrhage. Limitations of X-ray examinations. Increasing intra-cranial pressure. Essential differential considerations between brain, spinal cord and peripheral system surgery. Sympathetic nerve surgery.

Discussion—Dr. Max Peet, Ann Arbor; Dr. Albert S. Crawford, Detroit.

8. "Tumors and Their Behavior"—Dr. Henry J. Vanden Berg, Grand Rapids.

While the cause of tumor growths is unknown, much is known of their behavior. The origin of a tumor is an important factor in its behavior; also the type of cellular structure. Certain tumors have known tendencies as regards their routes of spread and also the location of their secondaries. To be familiar with these tendencies is helpful in "running them down."

Discussion—Dr. Joshua Manwaring, Flint; Dr. Earl I. Carr, Lansing.

MORNING SESSION

Thursday, September 24—9:15 A. M.

Election of Chairman.

9. "The Response of Different Types of Sarcomas to Treatment"—Dr. D. B. Phemister, Chicago.

The results of treatment in various ways are discussed in terms of classifications based on both cell type and degree of cell differentiation. It is very unsafe to interpret the degree of malignancy in terms of degree of differentiation of cells. Very favorable results have been obtained in some of the least differentiated sarcomas. Tumors of certain tissue types present a worse prognosis than those of other tissue types.

Discussion—Dr. J. Walter Vaughan, Detroit; Dr. Traian Leucutia, Detroit.

10. "Carcinoma of the Small Intestine"—Dr. Dean Lewis, Baltimore.

The paper will deal with carcinomas of the small bowel, discussing the relative frequency when compared with other tumors of the gastro-intestinal tract. In addition discussion of carcinoma of the small intestine, carcinoid tumors and also lymphoblastomas. The frequency of lymphoblastomas of the small intestine and their comparison with other types of tumors will be emphasized.

Discussion—Dr. Max Ballin, Detroit; Dr. Fred Coller, Ann Arbor.

11. "Diseases of the Spine Simulating Pott's Disease and Compression Fractures"—Dr. Lawrence Reynolds, Detroit.
Discussion—Dr. Alfred D. LaFerté, Detroit; Dr. Vernon L. Hart, Ann Arbor.

Section on Obstetrics and Gynecology

Chairman: HARRY M. NELSON, Detroit.
Secretary: HAROLD A. FURLONG, Pontiac.

MORNING SESSION

Wednesday, September 23—9:15 A. M.

1. "Management of Sterility Studies from the Standpoint of the General Practitioner"—Dr. Clarence Toshach, Saginaw.

2. "Rural Obstetrics—Analysis of 500 Cases"—Dr. Chas. F. Dubois, Alma.

3. "Accidents Sustained by the Genito-Urinary System During Operative Procedures"—Dr. H. L. Morris, Detroit; Dr. J. F. Brunton, Detroit.

   The various types of accidental injury—vesical and ureteral—are classified. Six cases are used to illustrate certain lesions. Special attention is directed towards the accidental injuries in Gynecological procedures. Indications for cystoscopy and genito-urinary investigation are stressed. Symptomatology, prognosis, and treatment—both palliative and surgical—are discussed in detail.

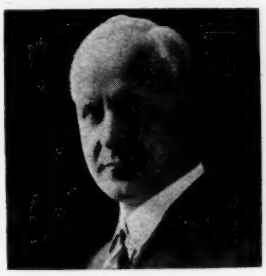
4. "Milk Treatment in Pelvic Inflammatory Disease"—Dr. H. W. Yates, Detroit; David Davidoff, Detroit.

5. "Present Trends to Control Impregnation"—Dr. Harrison S. Collisi, Grand Rapids.

   This discussion will include abortion and contraception and the tendency of womanhood to adopt means for the prevention of pregnancy, and the duty of the medical profession to point out its harmful, as well as beneficial, effects upon the health of the prospective mother, as well as to the cause of civilization.

6. "Some of the Newer Aspects of Gynecology"—Dr. Arthur H. Curtis, Chicago.

Dr. Arthur Hale Curtis was born in 1881. His early life was spent in Madison, Wisconsin, and he obtained his bachelor's degree from the University of Wisconsin. He graduated from Rush Medical College in 1905. He took postgraduate work at Berlin and Vienna, 1905, 1906 and 1908. Dr. Curtis is a Chief of Department of Gynecology and Obstetrics at the Northwestern University. He is a Fellow of the American College of Surgeons. He has published a great many articles and has written two text books.



DR. CURTIS

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7. "Report of a Series of Bougie Induction of Labor"—Dr. G. A. Carmichael, University Hospital, Ann Arbor.

AFTERNOON SESSION

Wednesday, September 23

1. "The So-called Functional Uterine Bleeding"—Dr. Kretchmar, University Hospital, Ann Arbor.

2. "Indications for Cesarean"—Dr. Roger Siddall, Detroit.

   A consideration of the more common indications for Cesarean section based on the literature and personal experience. Cesarean section of any type is easy but dangerous, obstetrically speaking, and should be resorted to only after careful examination of the prospects for vaginal delivery. Indications for the operation in specific conditions are discussed.

3. "Treatment of Asphyxia Neonatorium"—Dr. Harold Henderson, Detroit.

4. "The Saving of the Perineum During Delivery"—Dr. J. E. Cooper, Battle Creek.

   This will take up episiotomy and also low forceps delivery and the repair of the episiotomy and also the repairs following spontaneous deliveries with lacerations.

5. "Presentation of a Patient with Enormous Hypertrophy of the Breasts During Pregnancy"—Dr. Max Burnell, Flint.

   This is a young primipara. Breasts were normal. Within two months after pregnancy the breasts increased to an enormous size. They hang almost to the knees and have increased in circumference in proportion.

6. "Cancer of the Cervix Attached by Vaginal Route—Review of 1000 Operative Cases"—Prof. Ludwig Adler, Vienna.

   Professor Adler has been one of the leading exponents of vaginal hysterectomy. He has probably performed this operation oftener than any other man.

MORNING SESSION

Thursday, September 24—9:15 A. M.

1. "Acute Pelvic Inflammatory Disease"—Dr. I. S. Gellert, Detroit.

2. "Conservative Treatment in Toxemias of Pregnancy"—Dr. Robt. B. Kennedy, Detroit.

3. "Postmortem Cesarean Section with Survey of Literature"—Dr. Alexander Campbell, and Dr. J. Duane Miller, Grand Rapids.

4. "Treatment of Trichomonas Vaginalis Vaginitis"—Dr. Howard Cummings, Ann Arbor.

5. "Actinomycosis of Fallopian Tubes—Report of a Case"—Dr. Charles E. Boys, Kalamazoo.

6. "Intracranial Injuries of the Newborn"—Dr. Fred L. Adair, Chicago.

   The discussion will include:
   The mechanism of the production of intracranial injuries.
   The frequency of their occurrence as a cause of death.
   The confusion of the symptoms of these injuries with those of the so-called asphyxia neonatorium.
   The occurrence of these injuries as a result of violent labors, of long hard labors, and of artificial deliveries.
   Some points in technic which will tend to minimize these injuries.

Dr. Fred Adair was born July 28, 1877, at Ana Mosa, Iowa. He received his medical education at Rush Medical College from which he graduated in 1901. Postgraduate work was taken in Berlin in 1908. He is Professor of Gynecology and Obstetrics, University of Chicago. He is a member of the American Gynecological Society, American Association of Obstetricians, Gynecologists and Abdominal Surgeons and Fellow of the American College of Surgeons. Dr. Adair has written numerous articles in periodicals and medical publications.

DR. ADAIR

MORNING SESSION

Wednesday, September 23—9:15 A. M.

1. "A Case of Congenital Ectodermal Dysplasia"—Dr. A. M. Hill, Grand Rapids.

   A case demonstrating unusual defects which are probably of a hereditary nature will be reported. These defects include, hair, teeth, and skin, all of which are derived from the ectoderm of embryonic life. The paper will include a short review of the literature and a discussion of the etiology, symptoms and diagnosis of the "Anhidrotic" type of ectodermal dysplasia.

2. "Correlation of Clinical, Roentgenological, and Autopsy Findings in Childhood Tuberculosis"—Dr. John A. Bigler, Clinical Assistant in Pediatrics, Northwestern University, Chicago, Ill.

   Roentgenograms of the chest are practically essential in the diagnosis of tuberculosis in children. This is true because clinical and physical manifestations are often absent or very questionable. As tuberculosis in childhood differs from that found in the adult, the same criterion in X-ray interpretation cannot be used. This report deals with the interpretation of chest roentgenograms in childhood tuberculosis based and checked upon observations at necropsy.

   Discussion—Dr. Fred Hodges, Professor of Roentgenology, University of Michigan, Ann Arbor.

Dr. John A. Bigler is Assistant Attending Physician, Children's Memorial Hospital, Chicago; Clinical Assistant in Pediatrics, Northwestern University Medical School.

3. "Artificial Immunity to Tuberculosis, with Special Reference to the Bacillus of Calmette and Guerin (B.C.G.)"—Dr. Malcolm H. Soule, Associate Professor of Bacteriology, University of Michigan, Ann Arbor.

   The data of many investigators in several countries indicate confirmation of the work and contentions of Calmette that the feeding of the living bacillus of Calmette and Guerin to the newborn produces an active immunity to tuberculosis and the bacillus when properly cultured is avirulent.

   Discussion—Dr. Daniel Budson, Department of Pediatrics, University of Michigan, Ann Arbor.

4. "Skin Temperature"—Dr. Walter G. Maddock, Instructor, Department of Surgery, University of Michigan, Ann Arbor.

   A brief résumé of skin temperature findings with variations under normal and abnormal conditions will be presented.

AFTERNOON SESSION

Wednesday, September 23—1:30 P. M.

1. "Acute Appendicitis in Infancy"—Dr. Rockwell Kempton, Saginaw.

   The unexpected finding at autopsy of a gangrenous appendix in an infant aged eighteen months who had for a period of nine days been suffering from nausea, vomiting and diarrhea emphasizes the difficulty of diagnosis of acute appendicitis during the first two years of life. While statistics would seem to prove the rarity of the condition during this period, it is well to consider that the diagnosis is probably seldom made, and then only in the more typical cases.

2. "Birth Injuries"—Dr. Bronson Crothers, Assistant Professor of Pediatrics, Harvard University, Boston, Mass.

   From the neurologist's point of view, the process of delivery of babies is of greatest interest. As far as he is concerned, he thinks of the foetus as an envelope of pliant bone and weak muscle surrounding a nervous system, and he is particularly interested in the stresses which are imposed upon this delicate organism. He sees breakdowns as the result of labor, and he always realizes that many of them are inevitable. The chief plea that is made is that the consideration of the mechanism of labor should include intracranial stress.

Dr. Bronson Crothers is Neurologist, Children's and Infants' Hospitals, Boston; Assistant Professor of Pediatrics, Harvard Medical School; Chairman of Sub-committee on Psychology and Psychiatry of the White House Conference on Child Health and Protection.

3. "The Intracranial Tumors of Childhood"—Dr. Loyal Davis, Associate Professor of Surgery, Northwestern University, Chicago, Ill.

   The various intracranial tumors which are most common in childhood include the medulloblastomas of the fourth ventricle, cerebellar astrocytomas and suprasellar cysts. These tumors are discussed from the standpoint of their early symptomatology and the results of surgical treatment.

Dr. Loyal Davis is Associate Professor of Surgery, Northwestern University, Chicago, Ill.

DR. DAVIS

4. "Pachymeningitis Hemorrhagica Interna in Infants"—Dr. Edgar A. Kahn, Assistant Professor of Surgery, University of Michigan, Ann Arbor.

   This condition is more common than is generally supposed. During the past four years ten cases have been discovered which were sent in as hopeless hydrocephalics. The differential diagnosis, prognosis and therapy will be discussed.

5. "A New Method for the Study of Edema"—Dr. F. H. Lashmet, Instructor, Department of Internal Medicine, University of Michigan, Ann Arbor.

   Heretofore most studies of edema have been based upon changes in body weight correlated with free fluid intake and urine output. The fallacy of this method is pointed out and a more accurate method based on complete water exchange described.

MORNING SESSION

Thursday, September 24—9:15 A. M.

Election of Section Officers.

1. "Report of a Case of Acrodynia"—Dr. F. B. Miner, Flint, Michigan.

2. "A Review of the Literature on Epidemic Poliomyelitis"—Dr. Dorman E. Lichty, Instructor, Department of Pediatrics, University of Michigan, Ann Arbor.

3. "Practical Problems in Poliomyelitis"—Dr. J. P. Leake, Senior Surgeon, U. S. Public Health Service, Washington, D. C.

   Historical and epidemiological considerations, diagnostic criteria, practical handling of cases with special reference to the intermediate period between the preparalytic symptoms and the time for surgical intervention.

Dr. J. P. Leake is Senior Surgeon, Bureau of the Public Health Service, Washington, D. C.

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4. "Clinical Aspects of Poliomyelitis"—Dr. John Gordon, Medical Director Division of Communicable Diseases, Herman Kiefer Hospital, Detroit.

   Clinical knowledge has progressed to such a state that physicians can no longer be content with a diagnosis of infantile paralysis. Well developed principles permit diagnosis of poliomyelitis before paralysis. The clinical forms of the fully developed infection depend upon focal localization in the central nervous system. Differentiation from other common infections is possible by clinical methods and readily confirmed by examination of the cerebrospinal fluid. Recent developments in the management of the disease contribute toward a lower fatality rate and lessened permanent disability.

Section on Dermatology and Syphilology

Chairman: CYRIL K. VALADE, Detroit
Secretary: G. H. BELOTE, Ann Arbor

MORNING SESSION

Wednesday, September 23—9:30 A. M.

1. Clinic of "Common Skin Diseases."—Demonstration of diagnostic points and discussion of common forms of therapy. In charge of Drs. Jamieson, Bartholomew, Van Rhee, Troxell, Hyde and Saunders.

AFTERNOON SESSION

Wednesday, September 23—1:00 P. M.

2. Chairman's Address, "Arsenic Paste in Cancer of the Skin"—Dr. Cyril K. Valade, Detroit.

   A short history of the uses and abuses of this ancient remedy for ulcers of the skin.

3. Election of Officers.

4. "Epidermophytosis of Hands and Feet"—Dr. Arthur E. Schiller, Detroit.

   A brief history of Epidermophytosis. The relation between eczema, industrial dermatitis and parasitic diseases. Types and diagnosis of epidermophytosis. Treatment—stressing the impracticability of the same type of treatment in every case and outlining a system for care of the various types of this condition. (Lantern slide discussion.)

   Discussion—Dr. Loren W. Shaffer.

5. "Prevention of Prenatal, Congenital and Neuro-Syphilis"—Dr. W. G. Wander, Detroit.

   Group studies of prenatal and congenital syphilis show that these forms of syphilis can be decreased or brought to treatment while still amendable, if serologic tests are made to replace all assumption that syphilis does not exist. Spinal fluid examination should routinely become a part of the therapeutic program in every case of syphilis.

   Discussion—Dr. W. L. Brosius.

DR. O'LEARY

Dr. Paul A. O'Leary is Director of Section on Dermatology and Syphilology, Mayo Clinic, Rochester, Minnesota, and Professor of Dermatology and Syphilology, Graduate School, University of Minnesota.

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6. "Ten Years' Observation on Late Cutaneous Syphilis" — Dr. Paul A. O'Leary, Mayo Clinic.

   A morphological and clinical study of 100 cases with late cutaneous syphilis who were treated and observed for a period of over ten years. It is evident that visceral syphilis as well as neurosyphilis is not uncommon in association with cutaneous syphilis. The difficulties of differential diagnosis, including the misleading features of a therapeutic test are pointed out, and a resume is given of the results of treatment in a group of patients, stressing the characteristics of the patients as well.

   Discussion—Dr. Claude W. Behn.

MORNING SESSION

Thursday, September 24—9:00 A. M.

JOINT SESSION OF MEDICAL AND DERMATOLOGICAL SECTIONS

7. "Hepatic and Gastric Syphilis"—Dr. Paul A. O'Leary, Mayo Clinic.

A discussion of the diagnostic as well as the therapeutic problems offered by these two types of visceral syphilis. The laboratory aids to diagnosis in hepatic syphilis as well as treatment programs and life expectancy of the patient are discussed. Part of the paper dealing with gastric syphilis emphasizes the frequent difficulties in differentiating the lesion from gastric carcinoma, and a discussion of the question of therapeutic test versus surgery, and the results in the treatment of gastric syphilis is included.

Discussion—Dr. Loren W. Shaffer.

8. "Tularemia"—Dr. W. M. Simpson, Dayton, Ohio.

9. "A Few Skin and Mucous Membrane Lesions of Interest to General Medicine"—Dr. G. H. Belote, Ann Arbor.

A lantern slide demonstration of several groups of skin and mucous membrane lesions which are commonly met in general medicine and which have points of interest to all branches of medicine.

Discussion—Dr. Udo J. Wile.

Section on Ophthalmology and Otolaryngology

Chairman: CARL F. SNAPP, Grand Rapids.
Secretary: H. O. WESTERVELT, Benton Harbor.

MORNING SESSION

Wednesday, September 23—9:15 A. M.

1. Chairman's Remarks.

2. "The Relation of the Sympathetic Nervous System to Opthalmology and Otolaryngology."—Dr. W. Edward McGarvey, Jackson.

The rôle of the autonomic nervous system with its antagonistic action of vagotonia and sympatheticotonia has to be considered even in the field of the opthalmologist and otolaryngologist to help interpret certain clinical findings especially relative to the endocrine system. It also suggests a relation to allergic and protein reactions.

Discussion—Dr. Charles W. Ellis, Lansing; Dr. Carl G. Wenke, Battle Creek.

3. "Seventh Nerve Paralysis in Acute Suppurations of the Temporal Bone."—Dr. A. C. Furstenberg, Ann Arbor.

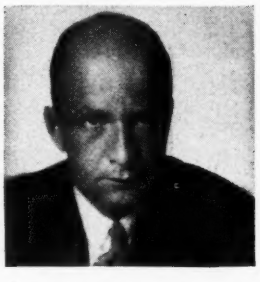
Discussion—Dr. J. S. Wendel, Detroit; Dr. J. J. McDermott, St. Joseph.

4. "Tears at the Ora Serrata. Their Significance and Their Treatment"—Dr. Peter C. Kronfeld, Chicago.

Recent discussions of the subject retinal detachment and its treatment have revealed striking differences between the opinions and experiences of the various authors concerning the frequency, the location, the response to surgical procedures, and the general significance of retinal tears. From these discrepancies it seems probable that retinal detachment does not represent a definite clinical or pathological entity. The author suggests that the cases with tears at the ora serrata be placed in one group because they show striking similarities in their clinical pictures and in their postoperative behaviour. Seven of the author's cases are presented to confirm this viewpoint.

Discussion—Dr. Walter R. Parker, Ann Arbor; Dr. Robert G. Laird, Grand Rapids.

Peter Clemens Kronfeld was born in Vienna, Austria (Austrian-Hungarian Monarchy), September 12, 1899. His father is Adolphe Kronfeld, M.D., Editor of the "Wiener Medizinische Wochenschrift," the oldest German medical journal; mother, Adolphine Waltenberger, both born in Vienna.



DR. KRONFELD

Dr. Kronfeld studied at the K. u. K. Maximiliangymnasium in Vienna, joined the Austrian Army in 1916 (Field Artillery 122), stayed at the Italian Front until two weeks before armistice was declared. He obtained the rank of lieutenant. He studied Medicine at the University of Vienna. The first three years he was mainly interested in Chemistry. He became instructor in Human Physiology, 1920 (Physiological Institute, University of Vienna). Interned at the first Medical Clinic (Prof. Wenckebach and Eppinger) and First Surgical Clinic (Prof. von Eiselberg). He obtained the degree of M.D. September, 1923. He became voluntary assistant at the First Eye Clinic in Vienna in 1923, where he studied until December, 1929. During this time he was promoted to the rank of an assistant. In 1924 he went to the Eye Clinic of the University of Berlin for one semester; in 1925 to the eye clinic of Prof. Terrien in Paris. He has never been in private practice except as an assistant to Professor Ernest Fuchs in 1924 and 1925.

In 1925 he obtained the prize of the Vienna Ophthalmological Society for his work on the "Carbon Dioxide Content of the Aqueous."

In December, 1927, the University of Chicago offered him an Assistant Professorship in Ophthalmology, which he accepted for two years. In August, 1929, he returned to the Meller Clinic in Vienna and served there until January, 1930. Then he was appointed Associate Professor in Ophthalmology at the University of Chicago and returned to Chicago, where he has been up to date.

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5. "Petrous Bone Involvement Complicating Mastoiditis"—Dr. James T. Mills, Grand Rapids.
Discussion—Dr. Robert H. Frazer, Battle Creek; Dr. H. Lee Simpson, Detroit.

6. "The Relationship of Recurrent Laryngeal Paralysis to Medicine and Surgery"—Dr. Edgar E. Poos, Detroit.

The recurrent laryngeal nerve being a branch of the Vagus, and due to its course and relationships to other cranial nerves is frequently affected by conditions about the head, neck and chest, causing a paralysis of laryngeal muscles and various syndromes involving other cranial nerves.
The Laryngologist can be of aid to the Internist and Surgeon in the Diagnosis and Treatment of these conditions.

Discussion—Dr. J. K. Heckert, Lansing; Dr. H. B. Weinburgh, Lansing.

LUNCHEON—12:00 O'CLOCK

Grill Room, Hotel Heldenbrand

Round Table Conference: Dr. Peter C. Kronfeld, Chicago. "Retrobulbar Lesions of the Optic Nerve."

QUESTIONS DESIRED DISCUSSED MUST BE WRITTEN AND HANDED IN EARLY FOR DR. KRONFELD'S CONSIDERATION.

Afternoon Reserved for Recreation

MORNING SESSION

Thursday, September 24—9:15 A. M.

1. "Bilateral Optic Neuritis and Electric Retinitis"—Report of two cases—Dr. Ray W. Hughes, Detroit.
2. "Serious complications of Mastoiditis" —Dr. A. P. Wilkinson, Detroit.
3. "Orbital Abscess Following Incision of an Acute Chalazion"—Dr. A. R. McKinney, Saginaw.
4. "Diseases of the Salivary Glands"—Dr. Wm. V. Mullin, Cleveland.
5. "Malignant Leukopenia"—Report of cases—Dr. R. N. Sherman, Bay City.
6. "Meeting the Mild Divergent Squint Factor as a Frequent Cause in Patients Who Return Stating that Their Glasses Are Not Comfortable"—Dr. Ralph H. Pino, Detroit.
7. "A Case of Retinitis Following Influenza"—Dr. John H. McRae, Grand Rapids.
8. "Hemolytic Streptococcus Pyemia Accompanying Mastoiditis"—Dr. Audrey O. Brown, Detroit.

Election of Chairman.

LUNCHEON—12:00 O'CLOCK

Grill Room, Hotel Heldenbrand

Round Table Conference: Dr. R. Bishop Canfield, Ann Arbor. General Discussion of Ear, Nose and Throat Problems of Everyday Practise.

QUESTIONS DESIRED DISCUSSED MUST BE WRITTEN AND HANDED IN EARLY FOR DR. CANFIELD'S CONSIDERATION.

Joint Section Meetings

THURSDAY AFTERNOON

September 24—1:30 P. M.

First Presbyterian Church

The six scientific sections will convene in joint session at which the following symposium will be given:

TUBERCULOSIS

1. **Medical.**
"Diagnosis of Early Tuberculosis—Dr. J. A. Meyers, Minneapolis, Minnesota. —For Medical Section.

The diagnosis of early tuberculosis does not necessarily consist in finding a demonstrable minimal lesion, as we have so often thought, but rather upon discovering evidence of the infection soon after it has occurred, and then watching for the first manifestations of the disease. This is best done by observing a group of children or adults who, on first examination, react negatively to the tuberculin test. By repeating the test at intervals of three to six months, one detects those who have been exposed and infected with tubercle bacilli very early in the course of the infection. By close observation of this recently infected group, one is very often able to detect very early tuberculosis lesions. These lesions frequently appear months and even years before the patient suffers from any symptoms of tuberculosis. In the past our education pertaining to early diagnosis has consisted largely of teaching the public the symptoms of tuberculosis. When symptoms appear, often we are not dealing with early tuberculosis. (Lantern slides and X-ray films will be used to demonstrate extremely early tuberculosis lesions as well as those observed over long periods of time, before symptoms appear.)

Dr. J. A. Meyers is Medical Director, Lymanhurst School for Tuberculous Children; Chief of Tuberculosis Service, Minneapolis General Hospital; Professor of Preventive Medicine and Public Health, University of Minnesota; Consultant in Childhood Tuberculosis to Director of Hygiene, Minneapolis Board of Education, and Chief of Chest Clinic, University of Minnesota. He is a member of the National Tuberculosis Association; International Artificial Pneumothoral Association; American Medical Association; American Sanatorium Association; American Public Health Association; Minnesota

DR. MEYERS

Public Health Association (President); and the American Medical Authors Association. He is on the Editorial Board of the *American Review of Tuberculosis,* New York; is associate editor of the *Journal of the Outdoor Life,* New York, and chairman of the Editorial Board, of the *Journal Lancet,* Minneapolis. He is the author of the following books: The Care of Tuberculosis (1924); Vital Capacity of the Lungs (1925); Fighters of Fate—A Story of Men and Women Who Have Achieved Greatly Despite the Handicaps of the Great White Plague (1927); The Normal Chest of the Adult and Child, Including Applied Anatomy, Applied Physiology, X-ray and Physical Findings. In Collaboration with Doctors White, Fahr, Scammon, Rasmussen and Stewart (1927); The Diagnosis, Classification and Treatment of Tuberculosis (1927); Tuberculosis Among Children (1930); The Child and the Tuberculosis Problem (in press), and has to his credit approximately 175 articles published in medical journals.

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2. Pediatrics.

"Tuberculosis in Children and Adolescents"—Dr. Henry D. Chadwick, Tuberculosis Controller, Department of Health, City of Detroit.

Tuberculosis should be considered one of the serious diseases of childhood. It causes more deaths in persons under twenty than any other communicable disease. There are three distinct periods in the life of a child when there is a marked difference in their resistance to tuberculosis as shown by the death rate. These periods are under five, five to ten, and ten to twenty. Early diagnosis is dependent upon the use of the tuberculin test and roentgenogram of the chest. An analysis of 110 cases of the adult type of tuberculosis found in school children will be given.

3. Ophthalmology and Oto-Laryngology.

"Tuberculosis of the Nose, Throat and Larynx"—Dr. William V. Mullin, Cleveland, Ohio.

A more detailed anatomy than that usually given in the ordinary text book is necessary to understand the physiology and diseases of the salivary glands. (Slides will be shown demonstrating this point.)
Theories as to inflammation of the various glands. Formation of calculi: diagnosis and treatment. Tumors of the salivary glands.

4. Dermatology and Syphilology.

"Tuberculosis of the Skin"—Dr. H. L. Keim, Detroit.

General considerations. Types of involvement. (a) True cutaneous infiltrates. (b) Tuberculides. (c) Sarcoids. The role of tuberculosis in lupus erythematosus and its relation to tuberculous manifestations in other parts of the body. Therapeutic attack. Prognosis.

5. Surgery.

"Intrapleural Penumolysis for Pulmonary Tuberculosis"—Dr. John Alexander, Ann Arbor.

Division of pleural adhesions that are interfering with satisfactory collapse of a lung by artificial pneumothorax. Two methods of intrapleural pneumolysis: 1. Closed, by the use of a thoracoscope and cautery; 2. Open, through an incision in thoracic wall after resection of part of a rib. Description of operative techniques and relative advantages and dangers of each method. Indications and contraindications, complications and results.

6. Gynecology and Obstetrics.
Dr. Fred Adair, Chicago.

SCIENTIFIC EXHIBITS

Members are urged to visit the Scientific Exhibits. Dr. W. K. German, Director, has secured a splendid showing of many interesting pathological, X-ray, Surgical and Medical Exhibits that are most instructive.

COMMERCIAL EXHIBITS

A feature of the meeting is the Commercial Exhibit. Here you will find represented reliable business firms ready to meet your needs in supplies, equipment and drugs. Your time is well spent in visiting these booths.

GENERAL INFORMATION

1. *Hotels:* Write to hotel managers or to Dr. Eklund for your hotel reservations. Delegates are urged to write to Hotel Waldron.
   Detroit hotels will not be available. The American Legion has every available Detroit reservation.
2. *Golf:* Guest cards will be available for local country clubs.
3. *Entertainment:* Oakland County Medical Society will entertain officers and delegates at the Bloomfield Country Club at 9:30 P. M., Tuesday, Sept. 22. Ladies' entertainment will be provided for by the Woman's Auxiliary.
4. *Health Exhibits:* The local society is sponsoring public health exhibits and talks in the First Presbyterian Church.
5. *Commercial Exhibits:* These will be placed in Masonic Temple.
   Scientific Exhibits: Be sure and see these in the Masonic Temple.
   Registration: Registration Bureau will be located in the Masonic Temple. It will be open from 8:30 A. M. to 6:00 P. M. daily.
   Combined Section Meetings: All the Scientific Sections will combine in a general meeting at 1:30 P. M. on Thursday, Sept. 24. See general program for list of speakers who will discuss tuberculosis.
   Centennial Meeting: The Oakland

County Medical Society will celebrate its organizational centennial in the Tabernacle on Thursday evening, Sept. 24, at 7:30 P. M. It will be a public meeting. The main address will be by Dr. Morris Fishbein, Editor of the Journal of the American Medical Association. The local society will award three hundred dollars in prizes. Plan to stay for this celebration.

WOMEN'S AUXILIARY PROGRAM

Mrs. Frank A. Mercer, President and General Chairman

Reception Committee,
Mrs. Raymond Tuck, Chairman
Mrs. D. G. Castell
Mrs. A. L. Brannock
Mrs. George A. Sherman
Mrs. A. V. Murtha
Mrs. Harry A. Sibley

Sightseeing Tour Committee,
Mrs. Robert H. Baker, Chairman
Mrs. J. E. Church
Mrs. Frederick A. Baker

Bridge Party Committee,
Mrs. B. M. Mitchell, Chairman
Mrs. Bertil T. Larson
Mrs. Hubert Heitch

Style Show Committee,
Mrs. Leon F. Cobb, Chairman
Mrs. Frank B. Gerls
Mrs. Ethan B. Cudney

General Meeting Luncheon Committee,
Mrs. Clifford T. Ekelund, Chairman
Mrs. Harold A. Furlong
Mrs. C. A. Neafie

Women's Golf Committee,
Mrs. A. D. Riker, Chairman
Mrs. Campbell Harvey
Mrs. Donald F. Hoyt

The Auxiliary is planning a special sightseeing trip to the Cranbrook School and estates in Bloomfield Hills.

An evening bridge party Tuesday evening, September 22.

Style show to be held during the convention.

General Meeting of the State Women's Auxiliary will be held Wednesday afternoon, September 23, including luncheon.

Special golfing privileges will be afforded women guests.

Committee Reports

CIVIC AND INDUSTRIAL RELATIONS COMMITTEE

The Civic and Industrial Relations Committee has had three meetings this year, one at the Wardell Hotel in Detroit on January 19, and the other two at the Wayne County Medical Society Club Rooms in Detroit on February 16 and April 20, respectively.

The question of major importance under discussion at all of these meetings was the subject of report blanks for health and accident insurance companies. The Committee invited ten of the outstanding insurance companies to send representatives to the February 16 meeting for the purpose of discussing the question and arriving at some definite solution of the problem. Representatives of four of the insurance companies were present. Inasmuch as the insurance companies presented certain problems which were affected by the various state laws, it was deemed advisable to refer this whole matter to the American Medical Association.

Accordingly, the following resolution was presented to the House of Delegates of the American Medical Association at its meeting in Philadelphia, June 8 to 12, by Doctor J. D. Brook, the Michigan delegate.

"WHEREAS, the Michigan State Medical Society, through its committee on Civic and Industrial Relations, has made a comprehensive study of the question of filling out claim proofs of Health and Accident Insurance Companies; that this study has extended over a period of three years and has involved an extensive analysis of the subject, including a conference with representatives of several outstanding insurance companies; and that, as a result of such study and conference, the Michigan State Medical Society has adopted suitable resolutions providing for the charging of a fee to the insurance companies of not less than $2.00 for filling out each preliminary and final claim proof, and

"WHEREAS, the Michigan State Medical Society, by its action in adopting such resolutions, has created the interest and favor of other State Medical Societies in the question, which equally affects every other State Medical Society; and that the Michigan State Medical Society has met with considerable opposition from the insurance companies, for the reason that they object strenuously to the plan, and point out that Michigan represents only a small section of the nation and should not undertake a project affecting the policy of all the insurance companies of the United States, and

"WHEREAS, the rights and privileges of the individual physicians of the entire United States are involved and are being encroached upon by the Health and Accident Insurance Companies who are continuing to insist that the services of the physician in filling out claim proofs are part of the physician's professional obligation to his patient; that the insurance companies are unwilling to concede that the information given to them is for their own statistical use in properly adjusting claims; and that they are unwilling to pay the physician his fee, therefore

"BE IT RESOLVED, That the House of Delegates of the American Medical Association concur with and approve the action of the Michigan State Medical Society in adopting resolutions providing for the charging of a fee of not less than $2.00 for each preliminary and final claim proof; and that the House of Delegates of the American Medical Association authorize its Speaker to appoint a committee to whom this problem shall be referred,

"FURTHER, That this committee be instructed to study the facts and factors involved and to formulate a national policy that will result in remunerating physicians and surgeons for their services to insurance companies, when rendering these reports that contain expert opinions and professional advice,

"AND FURTHER, That the Committee of the Association shall make a full report and recommendation at the next Annual Meeting of the House of Delegates of the American Medical Association."

The House of Delegates referred this resolution to the Bureau of Medical Economics. Doctor R. G. Leland, Director of the Bureau, was authorized to make a study of the question and to report at the next annual meeting of the Association. Doctor Leland has already conferred with your chairman and has obtained all information including correspondence and data upon which the Michigan society based its action in passing the original resolutions

which provoked the controversy between the insurance companies and the medical profession. It is expected that definite recommendations will be forthcoming from Doctor Leland's bureau at the next annual meeting of the American Medical Association in New Orleans. In the meantime the committee recommends that physicians adhere to the Michigan resolutions.

The committee also considered the matter of highway accidents but inasmuch as this question is now being studied by the Michigan State Hospital Association and is also being considered by the State Legislature, it has been deemed advisable that the medical profession refrain from entering into this activity.

In addition to the insurance activities the chairman met upon two occasions in Lansing with the Legislative Committee of the State Society on matters of mutual interest. One of them was the question of establishing Civic Health Committees in the various county societies. The chairman has had numerous conferences with individual physicians regarding the insurance controversy and has also carried on considerable correspondence with the various insurance companies regarding disputes which have arisen between individual physicians and insurance companies as a result of the Michigan resolutions.

The committee recommends that during the coming year more activity be devoted to the study of ecenomic problems affecting physicians in the State of Michigan.

Respectfully submitted,
HARRISON S. COLLISI, M.D., *Chairman.*

REPORT OF THE LEGISLATIVE COMMITTEE

The following members of the Legislative Committee were appointed by President Ray C. Stone: Earl I. Carr, John B. Jackson, J. M. Robb, John Sundwall and A. H. Whittaker. At the first meeting of the Committee, John Sundwall was elected Chairman and A. H. Whittaker, Secretary.

Due to an action taken by the House of Delegates at the annual meeting of the Michigan State Medical Society, 1930, the functions of the Legislative Committee were limited to those interests and activities concerned with dealing directly with proposed legislation in matters pertaining to public health and to the practice of medicine which would be presented at sessions of the Michigan State Legislature.

AIMS OF THE COMMITTEE

Early in its deliberations, the Committee decided that its work would be as constructive as possible. It wanted the Legislature to feel that the Committee desired most to be of genuine service to the Legislature in helping to determine the merits of the bills pertaining to the health of the public that would be presented to the Legislature during the 1931 assembly. With this purpose in view, the Committee held weekly meetings during the session of the Legislature whereat the many bills pertaining to public health which had been presented during the intersessions of the Committee were considered. Thirteen regular meetings of the Committee were held. The average length of each of the meetings was from 5 to 6 hours. Other meetings were held in conjunction with the Executive Committee of the Satte Medical Society and with the Committee on Civic and Industrial Relations. Moreover, members of the Legislative Committee, during this period, visited 17 different County Medical Societies in the State with a view of discussing the work of the Legislative Committee. Thus, it is seen that the Committee took its work seriously and devoted a great deal of time and effort to it. No lobby was maintained by the Medical Society at Lansing. Not one cent was spent by the Society for the purpose of influencing votes. The meetings of the Committee were open to those who desired to attend. At practically all of the meetings, invited guests and visitors were present, members of the Legislature, representatives from the State Department of Health, members of the Council of the State Medical Society, Chairmen of the Legislative Committees of County Medical Societies, etc.

ACTIVITIES OF THE COMMITTEE

In general, the modus operandi of the Legislative Committee was as follows: When a bill pertaining to public health was introduced in the Legislature, a copy of it was obtained, either in type-written form or after it was printed. The bill was then assigned to some member of the Committee for detailed study and report. Generally, the member of the Committee to whom the bill was assigned would consult other agencies concerned. At the next meeting of the Committee, this member would report his findings and make recommendations. The Committee, then, would discuss the measure and either approve or disapprove of the bill. The action of the Committee was then transmitted to that member or committee in the Legislature concerned with the introduction of the bill.

The Committee did much work during the intersessions. The Secretary and his Assistant collected information relative to the members of the Legislature and to their attitude towards public health and medical legislation. Many letters and other matters regarding the work of the Legislative Committee pertaining to public health legislation were sent out to county medical societies. Every effort was made to stimulate interest on the part of county societies in all matters pertaining to public health and medical legislations. Attention has already been called to the personal visits made by members of the Committee to the County Medical Societies. The Committee feels that all its efforts with the county societies were worth while. It believes that future Legislative Committees should maintain this connection.

The Secretary and his assistant collected information and prepared a working list of the following: 1. List of 265 weekly and 65 daily newspapers; 2. List of 550 Trustees of hospitals; 3. List of memberships in the Michigan State Dental Society; 4. List of 150 physicians who had shown particular interest in medical legislation. Numerous communications were sent out to these with a view of soliciting their help in matters pertaining to medical legislation. The Committee felt that agencies other than the medical profession should be actively concerned with good public health legislation.

The Secretary has made a permanent and convenient file of cppies of this correspondence and of medical and health bills presented to the 1931 Legislature. These files should prove of great value to future Legislative Committees.

During the intersessions of the Legislative Committee, members thereof did much work along the lines of personal interviews and correspondence with people interested in and concerned with public health and medical legislation.

That the work and actions of the Committee, on the whole, were effective may be noted in the fact that in general bills introduced in the Legislature, to which the Committee was vigorously opposed, were not enacted. On the whole, the bills pertaining to public health which were enacted were approved by the Committee.

BILLS CONSIDERED

The following is a list of 61 bills which were carefully considered by the Legislative Committee.

The action taken by the Committee and by the Legislature on these bills are recorded.

HOUSE BILLS

H. B. 28. To Reduce Interest Charge on Small Loans. Committee approved. House Action: Referred to Committee on Judiciary.

H. B. 35. To Include Occupational Disease in Workman's Compensation Law. Committee disapproved. House Action: Referred to Committee on Public Health.

H. B. 48. State Board of Health to Approve Plans for City Water Works. Committee approved. House Action: Approved. Enrolled No. 96.

H. B. 49. To Prescribe Fees for Certified Copies of Births and Deaths. Committee approved. House Action: Approved. Enrolled No. 101.

H. B. 52. To License and Regulate the Business of Making Loans in Amounts of $300 or Less. Committee approved. House Action: Referred to Committee on Judiciary.

H. B. 56. To Transfer Work of Eradicating Tuberculosis in Live Stock to State Department of Agriculture. Committee approved. House Action: Enrolled No. 231. Immediate effect.

H. B. 60. State Administrative Board Measure—to Prohibit Allowance of Funds not Specifically Appropriated. Committee approved. House Action: Approved. Enrolled No. 3. Immediate effect.

H. B. 63. To Provide for the Registration of Unreported Deaths. Committee approved. House Action: Approved. Enrolled No. 26.

H. B. 64. To Regulate the Storage and Disposition of Sewage. Committee approved. House Action: Amended, passed and transmitted.

H. B. 65. To Provide for the Registration and Supervision of Medical Testing Laboratories. (As this bill was first submitted it affected every laboratory where bacteriological or serological tests were made, whether it be a private physician's office or a hospital laboratory. The committee conferred with laboratory operators, and with the introducer of the bill, and had its provisions limited to "public" laboratories.) Committee approved after certain amendments. House Action: Approved. Enrolled No. 21.

H. B. 69. Volunteer Firemen Included in Workmen's Compensation Law. Committee studied but took no action. House Action: Approved. Enrolled No. 48. Immediate effect.

H. B. 73. Relating to Diseases of Livestock. Committee approved. House Action: Enrolled No. 149. Presented to Governor.

H. B. 75. To Provide for the Medical and Surgical Treatment of Indigent Children in Hospitals approved by the State Board of Health. Committee carefuly considered bill. House Action: Passed and transmitted. Immediate effect.

H. B. 85. To Establish a State Tuberculosis Sanitorium in Northern Michigan. This was Speaker Ming's bill, and he appeared before the committee to discuss it. Committee approved construction of the hospital, and approved his malt tax method of raising the necessary money. House Action: Approved. Enrolled No. 77.

H. B. 86. To Repeal Saginaw County Act Providing for County Poor Physician. Committee gave bill much consideration. Bill referred to Saginaw County Committee. House Action: Approved. Enrolled No. 9. Immediate effect.

H. B. 87. To Provide that Supervisors May Require Affidavits from Persons Unable to Care for Indigent Patients. Committee gave this much consideration. Referred to Saginaw County Committee. House Action: Approved. Enrolled No. 10. Immediate effect.

H. B. 88. To Give County Health Departments Power to Employ Physicians and Nurses. Committee gave this much consideration. Referred to Saginaw Committee. House Action: Approved. Enrolled No. 8. Immediate effect.

H. B. 95. Issuance of Drivers' Licenses Every Three Years. Committee took no action. House Action: Referred to Committee on Transportation.

H. B. 97. Regarding Mill Tax Method of Supporting University. The Committee was divided on the wisdom of taking part in this matter. It was referred to the Council which voted not to take any action. House Action: Referred to Committee on Ways and Means.

H. B. 143. To Provide for a State Board of Chiropractic Examiners. Committee vigorously opposed this bill. House Action: Amended, passed and transmitted. Senate did not act on this bill.

H. B. 144. To Provide for Medical Examination of Person Charged with Driving While Drunk. Committee opposed this on the ground that it would be an unnecessary annoyance to the average physician. Bill passed the House. Senate took no action.

H. B. 153. To Provide for the Licensing of Plumbers. Studied by committee but found to have little bearing on health matters. House Action: Approved. Enrolled No. 43. Immediate effect.

H. B. 315. To Permit Admittance of Indigent Patients to Other than University Hospital at Discretion of Court. Committee approved bill. House Action: Amended, passed and transmited.

H. B. 331. To Create a Public Welfare Board. Committee studied bill but took no action. House Action: Referred to Committee on Public Health.

H. B. 337. To Permit Admittance of Indigent Patients to any Hospital Approved by the Commissioner of Health and to Limit County's Liability to $3.50 a Day. Committee studied bill and took no action. House Action: Referred to Committee on Public Health.

H. B. 338. Relation to Cemetery Funds. Committee studied bill and found no connection with health matters. House Action: Presented to Governor. Enrolled No. 161.

H. B. 357. The State Board of Medical Registration's Amendments to the Medical Practice Act. Committee's action—this bill is discussed later on in this report. House Action: Referred to Committee on Public Health.

H. B. 369. To Provide a Substitute for the Present Narcotic Act. Committee approved. House Action: Presented to Governor. Enrolled No. 146. Immediate effect.

H. B. 376. To Eliminate Provision Necessitating Construction of 50-bed Sanatorium. Committee approved. House Action: Referred to Committee on Public Health.

H. B. 402. To Accept Report of any Registered Physician of Physical Examination of Drivers of Vehicle for Hire. Later amended. Committee disapproved. House Action: Ordered Enrolled. Enrolled No. 220.

H. B. 447. To Authorize Establishment of Psychiatric Clinic at Jackson Prison for Scientific Study of Convicted Felons. Committee approved. House Action: Referred to Committee on Ways and Means.

H. B. 467. To Limit State Aid to Counties to the Amount Appropriated for the Treatment of Indigent Patients. Committee approved. House Action: Approved. Enrolled No. 80.

H. B. 472. To Exclude Persons Afflicted with Traumatic Epilepsy from Sterilization Act. Committee approved. House Action: Passed and transmitted. Immediate effect.

H. B. 490. New Plumbing Code. Committee studied and found no bearing on health matters and took no action. House Action: Ordered printed and re-referred to Committee on Public Health.

H. B. 501. Supervisors—to Prohibit Other than Physicians and Undertakers from being Interested in County Contracts. Committee did not make complete study of bill. House Action: Referred to Committee on Towns and Counties.

H. B. 521. To Require Father of Illegitimate Children to Pay Confinement Expenses. Committee approved. House Action: Referred to Committee on Judiciary.

H. B. 533. To Authorize Circuit Courts in Chancery to Require Physical or Mental Examinations in Suits for Divorce. Committee made no recommendation. House action: Referred to Committee on Judiciary.

H. B. 608. Amendments to Chiropodists' Board Act. Committee disapproved of attempt of Chiropodists to treat "ailments of human leg and foot." House Action: Amended, passed and transmitted.

H. B. 622. To Allow Physicians of any Class to be Appointed to State Board of Registration in Medicine. Committee did not approve bill. House Action: Referred to Committee on Taxation.

SENATE BILLS

S. B. 7. Nurses' Bill to Provide for Board of Registration, etc. Committee, after conference with those actively concerned with sponsoring of bill, recommended its withdrawal. Bill withdrawn.

S. B. 12. Authorizing Commissioner of Agriculture to Refuse or Revoke Licenses of Milk Dealers. It had no direct bearing on health matters. Committee considered bill. Senate Enrolled Act No. 26. Immediate effect. Approved by Governor.

S. B. 13. Prohibiting Cropping of Dogs' Ears. No bearing on vivisection. Senate Enrolled Act No. 35. Approved by Governor.

S. B. 26. Reducing Number of Coroners in Wayne County from Two to One. Committee tried to get a conference with Coroner French but was unable, so no action was taken. Senate Action: Referred to Committee on Judiciary.

S. B. 54. To Require Sterilization of Water and Soft Drink Containers. No direct bearing on health. No action taken by Committee. Senate non-concurred in House Amendments.

S. B. 60. To Increase Educational Requirements of Embalmers. Committee studied and found this bill had no direct connection with health matters. Senate Enrolled Act No. 84. Presented to Governor.

S. B. 63. To Provide Three Years Drivers' Licenses. Committee saw an opportunity in this bill to obtain health examinations of large numbers of citizens with resulting benefits to health and for combating degenerative diseases. Senate Action: Referred to Committee on Transportation.

S. B. 74. To Regulate Practice of Cosmetology. Committee studied bill carefully and approved of it. Later an amendment was submited providing for acceptance of exammation of candidates by "osteopathic physicians." Committee opposed amendment. Amendment withdrawn. Senate Enrolled Act No. 48. Presented to Governor.

S. B. 84. To Allow Physicians to Prescribe Full Pint of Liquor. No direct bearing on public health and no action. Senate Action: Referred to Committee on Prohibition.

S. B. 107. To Provide for Investigation of Financial Condition of Patients before Admitting Them to Hospitals as Public Charges. Committee approved bill. Senate Action: Referred to Committee on Public Health.

S. B. 119. To Declare the Policy of the State of Michigan with Reference to Crippled Children. Committee approved

original bill. Bill amended last moment to include Osteopaths. Committee did not have opportunity to act on amended bill. Senate Action: Enrolled Act No. 131. Given immediate effect. Vetoed by Governor.

S. B. 135. To Limit Interest on Small Loans. Committee approved because it frequently occurs that a patient must borrow to pay hospital and medical bills. Loan interest rate too high. Senate Action: Re-referred to Committee on Judiciary.

S. B. 148. Regulating Practice of Pharmacy. After conference with leading pharmacists, committee approved. Senate Action: Ordered Enrolled Act No. 129.

S. B. 165. To Include new Ypsilanti Hospital under State Hospital Commission. Committee approved. Senate Action: Ordered Enrolled Act No. 74. Given immediate effect.

S. B. 167. To Put New Ypsilanti Hospital on State List. Committee approved. Senate Action: Enrolled Act No. 107. Presented to Governor.

S. B. 184. To Amend Present Osteopathic Act. The Committee opposed bill. Senate Action: Referred to Committee on Public Health.

S. B. 192. To Allow Contiguous Townships to Construct Hospitals. Committee approved. Senate Action: Passed, transmitted to House.

S. B. 201. Requiring Conviction of Physician before License can be Revoked. Committee disapproved. Senate Action: Referred to Committee on Judiciary.

S. B. 211. To Allow Increased Exemptions from Garnishment Act Where Person Garnished is Supporting Minor Children. Committee studied bill late in session but made no recommendations. Senate Action: Passed, transmited to House.

S. B. 223. Allowing Board of Education to Hire Physicians. Committee studied bill. Took no action. Senate Action: Ordered Enrolled Act. No. 124.

S. B. 240. To Abolish Present Crippled Children's Commission and Create New One Under State Welfare Department. Committee approved. Senate Action: Passed, transmitted to House.

S. B. 279. To Provide for the Examination, Regulation, Licensing and Registration of Physicians and Surgeons to Put Osteopaths on Par with Allopaths. Senate Action: Referred to Committee on Public Health.

SPECIAL INTERESTS OF THE COMMITTEE

While all bills pertaining to public health and the practice of medicine, presented at the Legislative Assembly of 1931 were of much interest to and received due consideration and action from the Legislative Committee, the Chiropractic Bill, the Osteopathic Bill, the Nurses Registration Bill, and the State Board of Medical Registration Bill were of special concern to the Committee.

The Committee maintained that no legal recognition should be given to any system of medicine which is not based on an adequate scientific training in those sciences which acquaint one with the structure, functions and care of the human body. It was, therefore, unalterably opposed to both the Chiropractic and Osteopathic Bills. Neither bill was enacted.

The Nurses Registration Bill was withdrawn.

The Committee found itself in a somewhat difficult position in regard to the State Board of Medical Registration Bill. It began its work with the understanding that no medical registration bill would be presented by the Michigan State Medical Society during the 1931 Legislative Assembly. The Council of the Michigan State Medical Society had previously agreed to support the recommendations of the Legislative Committee of 1930, to the effect that the Medical Society look forward to and work towards a constitutional amendment and legislative enactment whereby the functions and powers of certification and licensure for all the professions would be centered in a reconstructed Michigan State Department of Education.

The Committee realized that much time and effort would be required to consumate legislation which would bring about this recommendation. However, it felt that any legislation which had for its object the legal recognition of any profession and the establishment of a licensure board for this profession should be discouraged until after the idea of centering all licensure and certification for all professions in a State Department of Education has been given due consideration by all concerned. With this in mind, the Legislative Committee felt that it would not be consistent to present a medical registration bill in 1931.

In the meantime, the Board of Medical Registration prepared and presented a bill. It maintained that certain amendments to the existing medical practice act were necessary because of difficulties in the enforcement of the law and because of changed conditions in medical education. The bill provided for the appointment of 10 reputable licensed physicians to constitute the Board of Registration in Medicine. It provided for the authorization on the part of the Board to designate the examination subjects and fees. It provided for penalties, revocations, hearings, annual registration and certification of specialists.

This Bill was discussed before the Executive Committee of the Council and Legislative Committee of the Medical Society. The following two paragraphs are taken from a circular letter sent to County Secretaries under date of February 25, 1931, signed by the Chairman of the Council:

"Although it should be clearly understood that these amendments come from the Board of Registration and the Attorney General's office, the Legislative Committee of the Council and the Council of the Michigan State Medical Society thoroughly approve of them and urge your support."

"We enclose for your information a brief statement of the amendments, with the arguments why they should be supported. You will note that in this bill there are, however, two sections, ten and eleven, which may not properly be termed amendments to the act, the one having reference to *annual registration* and the other *to registration of specialists.* The Executive Committee feels that there is much virtue in both sections ten and eleven, but hesitate to give their endorsement without expression from the profession."

In view of the expressed emergency nature of this Bill and of the action taken, the Legislative Committee worked for its enactment. The Bill was discussed before 17 County Medical Society meetings. The Bill was not enacted.

Senate Bill 119.—Crippled Children, as originally presented, was approved by the Committee. At a late moment, it was discovered that the Bill had been amended to include "osteopathic physician." It was too late for the Committee to take any action. The Bill was enacted. Opposition to the Bill was expressed to the Governor by members of the Committee and Council. The Governor vetoed it.

Throughout its deliberations, the Committee had in mind the recommendation of the Legislative Committee of 1930 which was approved of by the Council that the Medical Society look forward to transferring the functions and powers of Medical Licensure to a reconstructed strong Michigan State Department of Education. The Committee believes that this is the only satisfactory and permanent solution of this now ever recurring and vexing problem.

It made several efforts to get this matter before the Governor for his interest and support. It took the proposal up with certain members of the Senate suggesting that the Legislature appoint a Commission to study this problem of licensure and certification for all professions during the intersession and report to the Legislative Assembly of 1933. The Committee felt that this would prove to be genuine, comprehensive and constructive statesmanship.

The outcome of this recommendation was not as complete or inclusive as the Committee had anticipated. On May 20, 1931, the following Resolution was introduced by Representative Culver. It was later approved by the House and Senate.

A concurrent resolution providing for the appointment of special legislative committee on the study and adjustment of present and proposed law concerning the practice of the healing art.

Whereas, the antipathy and rivalry of the various schools and methods of practicing the Healing Art in the State of Michigan has reached a point where the representatives of the various schools seem to be unable to arrive at a definite solution of their problems through the regular channels of legislation; and

Whereas, the present State Board of Registration in Medicine is admited to be illegally constituted, owing to the fact that the requirements of the present law in regard to the personnel of said Board have not been complied with for a number of years; and

Whereas, entirely definite and different problems exist in regard to various schools of medicine and methods of practicing the Healing Art; therefore be it

Resolved by the House of Representatives, the Senate concurring, that a special commission, consisting of four members of the House of Representatives, to be appointed by the Speaker, and three members of the Senate, to be appointed by the President, be known as a special legislative committee on the Study and Adjustment of present and proposed Laws concerning the Practice of the Healing Art. Members of said commission shall serve entirely without compensation or without expense to the State of Michigan for the purpose of preparing and submititng a plan and accompanying legislation to the next regular or special session of the Legislature, and be it further

Resolved, that such commission be appointed to perform its duties without expense to the State of Michigan.

The members of this Joint Committee were appointed as follows:

House:
Representative Culver
Representative Darin
Representative Jefferies
Representative Southworth
Senate:
Senator Conlon
Senator Lawson
Senator Upjohn

While the Resolutions limit the interests and activities to "present and proposed laws concerning the practice of the healing art," it is the hope and anticipation of the Legislative Committee that the Committee of the Michigan State Legislature will give every consideration to the problem of licensure and certification for all the professions now established and for those which will seek legal recognition and regulation in the future.

With a view of keeping in mind this idea of of working towards one central certificating and licensing agency, The Michigan State Department of Education, for all the professions and other vocations now legally recognized and regulated and for future professions or other vocations seeking legal recognition and regulations, the Committee submits the following:

CENTERING THE FUNCTIONS AND POWERS OF CERTIFICATION AND LICENSURE FOR PROFESSION AND OTHER VOCATIONS SEEKING LEGAL RECOGNITION IN A STATE DEPARTMENT OF EDUCATION.

Effective licensure or certification for all professions and other vocations involves: 1. A thorough knowledge of the character of the schools, elementary schools, high schools, colleges and universities, and professional schools, in which the applicant for a certificate or license to practice a profession or other vocation has had his training; 2. A knowledge of the quality of work which the applicant has done in these educational and training institutions; 3. A licensing or certificating or qualifying examination.

In other words, the processes of licensure or certification are simply those of looking into, evaluating and determining education qualifications. It is an educational problem. A State Department of Education is the one agency of the State which should be best equipped to look into, evaluate and determine the educational qualifications of him who desires to practice a profession or certain other vocations seeking legal recognition.

Today the State of Michigan, in addition to the certification of teachers by the State Board of Education, has enacted special legislation relative to the educational qualifications of and has constituted certification or licensure boards for the following vocations: Accountants, Architects and Engineers, Surveyors, Barbers, Chiropody, Embalmers, Dentistry, Law, Medicine, Nursing, Optometry, Osteopathy, Pharmacy, and Plumbers.

During the Legislative Assembly, 1931, several of these vocations were seeking amendments to their respective laws. New interests were seeking legal recognition—Chiropractors, Laboratorians, Cosmeticians.

The futility of continuing this old procedure of legal recognition is readily seen.

Advantages to be Gained From Centering the Functions and Powers of Certification and Licensure in a State Department of Education.

1. *Advantages to the State Government:* Far too much time and effort, with all the accompanying irritations, lobbying, "trades," suspicions and so on, are now taken up by the state legislature in enacting legislation relative to licensing or certificating regulations. This type of legislation is concerned with: 1. Amending existing laws which must be continually amended in order to conform with the ever changing trends in professional education and, 2. With the creating of new laws and new boards of registration for the ever increasing new professions and trades seeking legal recognition in the form of regulations relative to educational qualifications and to the setting up of special licensing and certificating boards.

How much more simple and effective it would be to establish a strong State Department of Education and refer to it the functions and powers of licensure and certification for all professions and other vocations. Assuredly, if this is done, future legislatures would have much more interest, time and energy for important and constructive legislation.

Moreover, the Governor would be spared the vexing problem of making almost innumerable appointments to the many and ever increasing boards of registration.

2. *Advantages to the State Department of Education:* At present the functions and powers of the State Board of Education in Michigan are limited to the general supervision of the state teachers' colleges and to the certificating of teachers. The functions and power of the Superintendent of Public Instruction are limited to the general supervision of public schools. In other words, the functions and duties of our State Education Department and State Superintendent of Public Instruction are centered on the teaching profession, his training and certification. This Department of Education, therefore, is regarded as one which is of concern only to the teaching profession.

Now, if all the functions and powers pertaining to educational qualification for the professions and other vocational seeking legal recognition were centered in the State Department of Education, this Department would become a much more effective and important agency in the State Government.

This can and should be done without an increase in the State's tax supported budget. Let us refer to the following: The total disbursements of the State of Michigan, fiscal year ending June 30, 1931, for the Department of Public Instruction (Administrative) was $134,995.78. The total receipts credited to 12 other licensing and registration boards during this fiscal year were approximately $167,000. Examination and registration fees and annual registration fees which should be paid in by members of each profession or other vocation, combined, should go far toward the support of the State Department of Education.

6. *Advantages to the Professions and Trades Seeking Legal Recognition:* These may be summarized as follows:

a. The professions and other vocations seeking

legal recognition would be freed from the suspicion of seeking special legislation—proprietary legislation.

b. They would become closely knitted together in their understanding and sympathies and in their efforts to see to it that the highest type of professional service is furnished to the people of Michigan.

c. The single machinery essential for the enforcement of the laws, may be utilized by all the professions. At present, the 13 different licensing and certificating bodies now set up in Michigan maintain, more or less, separate enforcement machineries.

d. The various professions and other vocations concerned can deal directly with the State Department of Education relative to educational qualifications and to other matters concerned without going through the long method of legislation.

PROCEDURE

Article XI, Section 2 and Section 6 of the Constitution should be amended in order to establish a strong State Department of Education. In general, the amendment should provide for an increase in the membership of the Board of Education to, let us say, seven or nine, to enlarge the duties and powers of this Board, and to give this Board the powers to appoint a Commissioner of Education who shall serve during the pleasure of the Board.

The idea of centering the functions and powers of Certification and Licensure in a strong Department of Education has been discussed before several groups representing several professions. In general, the reaction has been that a State Department of Education should be set up which should be given all the functions and powers of certification and licensure for vocations which will seek legal recognition in the future and for all vocations now legally established which desire to transfer these functions and powers to the State Department of Education in the Future.

Respectfully submitted,

EARL CARR
JOHN JACKSON
JAMES ROBB
ALFRED WHITTAKER
JOHN SUNDWALL, *Chairman*

CANCER COMMITTEE

The first meeting of the Cancer Committee of the Michigan State Medical Society was held on December 3, 1930, in the club rooms of the Wayne County Medical Society.

After discussion it was decided to begin the committee's work by making a survey of the facilities for the diagnosis and treatment of cancer in each county of the state.

The second meeting was held on February 24, 1931, in the club rooms of the Wayne County Medical Society. At this meeting we were honored by having Dr. James Ewing as our guest and availed ourselves of his expert counsel. At this meeting the following questionnaire was presented and approved:

This questionnaire was sent to the secretary of each of the county societies in the state. Replies have now been received from practically all counties and a digest of this information is available for reporting to the coming meeting of the State Society.

A third meeting of our committee will be called at the time of this State meeting.

Faithfully yours,
CHAS. E. DUTCHESS, *Chairman.*

Suggested Form for Reporting Facilities for Diagnosis and Treatment of Cancer
(Including all forms of malignancy.)

DIAGNOSIS

1. In your county, is there a well equipped X-ray organization prepared to do gastrointestinal studies, interpret bone lesions, etc?
   Remarks:
2. Are the following special examinations available in your county?
   (a) Sigmoidoscopic.
   (b) Cystoscopic.
   (c) Broncho-and esophagoscopic.
   (d) Retinoscopic, laryngoscopic, intranasal, etc.
   Remarks:
3. (a) Has your county an expert tissue diagnostic laboratory?
   (b) Are there facilities for frozen section diagnosis?
   Remarks:
4. (a) Is there any cancer research institute?
   (b) Is there any cancer or tumor hospital?
   (c) Is there any cancer or tumor registry?
   (d) Is there any permanent cancer clinic operating either separately or as part of the organization of a general hospital?
   Remarks:
5. Are all of above facilities available to patients of limited or no means? If not, what facilities are available to such patients?
   Remarks:

TREATMENT

1. Is expert cancer surgery, both general and in special fields, available to patients of all classes in your county?
   Remarks:
2. Is there a deep therapy plant in your county? What is its maximum voltage?
   Remarks:
3. Is there any radium owned in your county? If so, how much is owned by any individuals or organized groups, *i.e.*, how much is available for the treatment of any individual patient?
   Remarks:
4. Is there any radium emanation plant?
   Remarks:
5. Are local practitioners giving treatment with rented radium or emanation?
   Remarks:
6. Is there an institution for the care of incurable cancer patients? If so, is it open to patients without means?
   Remarks:
7. Is provision made for obtaining and recording follow-up information on all cancer patients from time of diagnosis to death or five year cure?
   Remarks:

Name of county society.

Signed:

Secretary.

JOINT COMMITTEE ON PUBLIC HEALTH EDUCATION

The Joint Committee on Public Health Education has held two meetings during the year, one on Jan. 22, held in conjunction with the Council and State Secretaries, and the second on June 1. The scope of the committee's activities is increasing each year. Last year the number of people reached by this service was larger than for any previous year since the work was begun. Forty thousand high school students heard from two to five lectures and the total aggregate attendance on all lectures was over one hundred and fifty thousand. The committee is also conducting a health column in the Detroit News and this service will be extended to other newspapers. The committee is also coöperating with the State Department of Public Instruction in a course of study in health for schools of the State. This very considerably enlarges the scope of the activities of the committee.

A tentative program is proposed for the next three years. This program includes the following:

First, the educational work including the organization of health programs for high schools and Parent-Teachers Associations, to be under the direction of Dr. C. A. Fisher.

Second, Dr. Soller will be assigned the field work which is to include personal contacts with local medical societies, the organization of courses, and the giving of lectures in connection with the assignments made by Dr. Fisher.

Third, that phase of the work which has to do with the selection of a staff of lecturers will be in direct charge of Dr. Henderson. His task is to in-

crease the number of speakers and to organize the group both with reference to geographical distribution and speaking efficiency.

Fourth, this phase of the proposed program has to do with the preparation of a Lecture Outlines Library. This will include the preparation of lecture outlines and will be under the direction of a special committee appointed for this purpose.

At the last meeting of the committee it was voted to invite the Children's Fund of Michigan and the Kellogg Foundation to have representatives on the committee.

In these days of changing economic and social conditions the importance of a proper understanding between the public and the medical profession cannot be too much emphasized. The attitude of the public toward the medical problems depends on their appreciation of medical science. It is amazing to realize how little information on medical matters is possessed by many people well informed on other matters. To overcome this situation and thus help solve some of the problems before us is the task of this committee. Next to our continued program of improving the standards of medical practice, the education of the public in health matters is the most important function of organized medicine. Every physician in our society should appreciate a responsibility in doing his share in this program of education.

In closing this brief report of the committee it is pertinent to quote the purpose of the committee it is pertinent to quote the purpose of the committee which wording was adopted at the time the committee was formed ten years ago, "To present to the public fundamental facts of modern scientific medicine, for the purpose of building up sound public opinion relative to questions of public and private health. It is concerned in bringing the truth to the people, not in supporting any school, sect or theory of medical practice. It will send out teachers not advocates.

LOCAL COMMITTEES 1931 ANNUAL SESSION

General Chairman	Robert H. Baker
Centennial Committee	Frederick A. Baker, Chairman
	Leon F. Cobb
	John D. Monroe
	Charles A. Neafie
Halls	P. V. Wagley, Chairman
	Ethan B. Cudney
	John Lambie
	F. D. German
	Karl Zinn
	Donald Hoyt
Hotels and Rooms	Clifford T. Ekelund, Chairman
	Loren C. Sheffield
	L. Warren Gately
	E. Kyle Simpson
Entertainment	Aaron D. Riker, Chairman
	L. A. Farnham
	Bertil T. Larson
	Edward Christie
	B. M. Mitchell
Publicity	A. V. Murtha, Chairman
	Chauncey Burke
	Donald F. Hoyt
	George A. Sherman
	Charles A. Neafie
Registration	Harold A. Furlong, Chairman
	Robert Cooper
	Harry A. Sibley
	Frank A. Mercer
	C. G. Darling, Jr.

Sessions of the Council

September 21, Monday—
4:00 P. M.—Waldron Hotel
6:00 P. M.—Dinner
7:00 P. M.—Evening Session

September 22, Tuesday—
12:00 Noon—Waldron Hotel
6:00 P. M.—Waldron Hotel

September 23—Wednesday—
12:00 Noon—Waldron Hotel

COUNCILOR DISTRICTS

First District.—Wayne

Second District.—Hillsdale, Ingham, Jackson

Third District.—Brance, Calhoun, Eaton, St. Joseph

Fourth District.—Allegan-Kalamazoo-Van Buren, Berrien, Cass.

Fifth District.—Barry, Ionia-Montcalm, Kent Ottawa

Sixth District.—Clinton, Genesse, Shiawassee

Seventh District.—Huron, Lapeer, Sanilac, St. Clair

Eighth District.—Gratiot-Isabelle-Clare, Midland, Saginaw, Tuscola, and Cladwin unattached.

Ninth District.—Grand Traverse-Leelanau, Manistee, Benzie, Tri (Kalkaska, Missaukee, Wexford)

Tenth District.—Bay-Arenac-Iosco, O. M. C. O. R. O. (Otsego, Montmorency, Crawford, Oscola, Roscomemon and Ogemaw combined)

Eleventh District.—Mason, Mecosta, Muskegon, Oceana, Newaygo, Osceola-Lake

Twelfth District.—Chippewa-Mackinac, Delta, Dickinson-Iron, Gogebic, Hought-Baraga-Keweenaw, Luce, Ontonagon, Marquette-Alger, Menominee, Schoolcraft

Thirteenth District.—Alpena-Alcona, Northern Michigan (including Antrim, Charlevoix, Cheboygan, Emmet, Presque Isle

Fourteenth District.—Livingston, Lenawee, Monroe, Washtenaw

Fifteenth District.—Macomb, Oakland

OTTO LEE RICKER

Doctor Otto L. Ricker of Cadillac died at Blodgett Hospital, Grand Rapids, on August 12, 1931.

Doctor Ricker was a Councilor of the State Society for a period of eight years and a resident of Cadillac since his graduation from the Detroit College of Medicine in 1904. He was first associated with Dr. McMullen of that city. He served in many capacities in his local and state organizations; he was a veteran of the world war and an outstanding citizen in his community. The sincere sympathy of the Society is extended to his wife and family. The next issue of the JOURNAL will contain a more extended review and record of his life of service and activity.

SOCIETY ACTIVITY

COMMENTS ON ACTIVITY

Standing Committee reports are contained in this issue. They impart additional organization work. Committee members have given generously of their time in the performance of their work.

* * *

We are receiving large numbers of inquiries as to suitable location for practice. At the present time we are uninformed as to openings. We shall be grateful for information as to suitable openings or locations in order to aid those who desire a location.

* * *

A Committee of the Grand Rapids bar has brought out a report imparting the illegal practice of law by banks, Trust Companies, Collection Agencies, Insurance Companies and others. The Committee recommends action to terminate illegal practice of law. Apparently the lawyers also feel the effects of the depression and are disinclined to condemn services that deprive them of income. We wonder if we might not be justified in calling to them as they have so long charged and called to us—"jealousy," "persecutions," "afraid of competition," "medical trust," etc. There are some seven hundred violators of the medical practice law in the State and yet lawyers use every court means to enable these violators to continue practice. We shall be more sympathetic with the lawyer's enforcement quest just as soon as he aids enforcement in medicine, dentistry and the other licensed professions and trades.

* * *

This brings up corporation practice of medicine. This subject is receiving the immediate study and attention of your council officers. Your Secretary is Chairman of a Committee of the American Federation of Licensing Boards that is conducting a nation-wide study of corporation practice of medicine and the legal factors involved. The Supreme Court of California has declared such practice illegal. A report will be made at the Federation meeting in February.

* * *

Once more the members' attention is called to our annual meeting and the program that will be carried out for that meeting. Attendance is urged.

Delegates will please note the time assigned for the three sessions of the House.

The Oakland County profession is eager to have you accept its hospitality. A large attendance will reward them for the efforts and energy they are exhibiting. There are ample hotel accommodations, yet we recommend you write for your reservations.

The following guests will participate in the program:

Morris Fishbein, Chicago
Charles Kiley, Cincinnati
Charles H. Watkins, Rochester
Walter M. Simpson, Dayton
J. A. Meyers, Minneapolis
Fred W. Rankin, Rochester
D. B. Phemister, Chicago
Dean Lewis, Baltimore
Arthur H. Curtis, Chicago
Fred L. Adair, Chicago
John A. Bigler, Chicago
Loyal Davis, Chicago
J. P. Leake, Washington
Paul A. O'Leary, Rochester
Peter C. Kronfeld, Chicago
Wm. V. Mullin, Cleveland

Surely a striking list of recognized clinicians and teachers. Men whom we would travel far to hear. They are at your door. Do not forego hearing them and the others who are on the program.

MINUTES OF THE JULY MEETING OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

Pursuant to call the Executive Committee met in Muskegon on July 22, 1931.

Present:

B. R. Corbus, *Chairman*
Henry Cook
C. E. Boys
George L. Le Fevre
James D. Bruce
R. C. Stone, *President*
Carl F. Moll, *President-Elect*
F. C. Warnshuis, *Secretary*

1. The Secretary suggested that he be authorized to secure one or two individuals who will operate a booth at the scientific exhibit, at our Annual Meeting, for the purpose of selling the Medical History of the State Medical Society on a commission basis. Upon motion of Boys-Le Fevre, this was approved.

2. A communication was received from

the Secretary of the Washtenaw County Medical Society relative to certain amendments pertaining to the National Prohibition Act. Upon motion of Cook-Le Fevre, the communication was placed on file for future consideration.

3. The Secretary presented the question of an honorarium for the Chairman of the Medico-Legal Committee. Upon motion of Le Fevre-Cook, the Secretary was directed to institute that honorarium of $1,000 per year beginning May 19, 1931.

4. The Secretary presented a communication of the counsel of the society relative to instituting a test suit to determine the ownership of X-ray films. This letter was in reply to an inquiry the Executive Committee had directed to be made of our legal counsel. After considerable discussion, upon motion of Cook-Le Fevre, it was determined that at the present time the expenditure entailed in such a suit should not be undertaken.

5. The Chairman and the Secretary reported upon the proposed complimentary dinner to Regent Richard R. Smith. It is proposed to tender this dinner under the auspices of the Fifth Councilor district sometime during the latter part of October of the present year.

6. The Secretary presented a report as of July 22, 1931, relative to collection of membership dues for the current year. The report revealed 2,871 members had paid their dues and that there were 650 delinquents. The majority of the delinquents are from counties having the larger industrial cities. After considerable discussion in which the Executive Committee viewed, with considerable concern, the general conditions entailed in the present financial depression and their effect upon the physicians of the state, upon motion of Bruce-Cook, the Secretary was directed to carry these members upon the rolls of the Society and to accord to them all the privileges of membership until further action was taken by the Council.

7. The Secretary presented a detailed financial report of the Society as of this date. It was discussed by the members of the Committee and the Chairman of the Finance Committee of the Council, and upon motion of Bruce-Boys, the report was approved and the Secretary directed to continue keeping the funds of the society in the present depositories.

8. The Secretary raised the question of section reporters at our Annual Meeting. After considerable discussion, upon recommendation of the Chairman of the Publication Committee it was moved by Boys-Le Fevre that section stenographers be dispensed with for the coming Annual Meeting and the Secretary be authorized to employ one reporter for the session of the House of Delegates and for the two general meetings.

9. The Chairman of the Publication Committee reported that his committee realized that owing to present conditions there exists a need for certain retrenchments in the publication of the Journal, and that the committee had under consideration certain plans for accomplishing the same. Upon motion of Le Fevre-Cook, the Publication Committee was authorized to exercise its judgment as to the scope and nature of these retrenchments and to institute same.

10. The Secretary raised the question of sending an individual questionnaire to the members of the Wayne County Medical Society, concerned with the several foundations and health units now operating in this state. After considerable discussion it was the sentiment of the Executive Committee that the Council of the Wayne County Medical Society be requested to set forth a statement reflecting the sentiment and attitude of its members, and that for the present no individual questionnaire be sent to the members of the Wayne County Medical Society.

11. The Chairman of the Council reported certain discussions and interviews that he and President Stone had had with representatives of the Children's Fund of Michigan. After discussion it was moved by Boys-Cook, that Dr. Cary of the Children's Fund be invited to confer with the Executive Committee at a future convenient date.

12. The Secretary reported upon different types of lanterns for the several scientific sections of the Society. Upon motion of Le Fevre-Boys, the Secretary was directed and authorized to purchase these new lanterns.

13. Upon motion of Le Fevre-Cook, the Executive Committee decided to meet in Ann Arbor on August 19, 1931.

14. Upon motion of Bruce-Cook, the Executive Committee adjourned at 10:20 P. M.

F. C. WARNSHUIS, *Secretary.*

COUNTY SOCIETIES

ALPENA AND NORTHERN MICHIGAN SOCIETIES

A joint meeting of the Alpena and Northern Michigan Medical Societies was held at Pinehurst Hotel, Indian River, July 9, 1931, the local dentists being also invited. More than fifty enjoyed the excellent dinner served.

Following dinner, the doctors, dentists and several of the ladies convened to hearken to the speakers present for the evening, Councilor Van Leuven presiding.

Dr. Slemons gave a timely résumé of the activities of the State Department of Health in its relations to practitioners.

Mr. Norton, of the Children's Fund, gave authentic information concerning the activities of that organization. Those present—the dentists especially—seemed much informed by his assurance that the Couzen's Staff is rendering treatment only to the indigent and not competing with private practice.

Dr. James Bruce, of the University, dwelt upon the policies of that institution and what it is endeavoring to do for the physician. He gave assurance of the Hospital's desire to take care of indigent cases only, and that it is the intent to accept pay patients only when referred by a physician, as long as they can thus obtain clinical material sufficient for student needs.

Speaker Ming narrated in some detail how he had done his best, not being a politician, to achieve the establishment of a tuberculosis hospital for Northern Michigan. The Speaker evinced touching solicitude that certain tuberculous families be aided in receiving sane, scientific medical care.

Dr. Otto Ricker, Councilor of the ninth district, was called upon and responded with his usual fiery eloquence.

Another distinguished guest inadvertently left off the program, was Dr. John D. Milligan, F. A. C. S., of Pittsburgh, Pa., class of '76.

DON H. DUFFIE, *Secretary.*

WOMAN'S AUXILIARY, MICHIGAN STATE MEDICAL SOCIETY

MRS. L. J. HARRIS, President, Jackson, Mich.
MRS. W. L. FINTON, Secretary, Jackson, Mich.

Pontiac Convention, September 22-23-24, 1931

All women attending the Convention, whether Auxiliary members or not, are invited to participate in the program.

As we have one day only given over to the business of the Auxiliary we hope that we may have a good attendance Wednesday, September 23. In the morning of that day at 11 o'clock will occur a Round Table for Auxiliary Presidents, who will discuss various problems incidental to their work, and in turn receive helpful suggestions.

At 12:30 the luncheon at the Pine Lake Country Club will be served, following which a program carefully planned by our hostesses will be given. At this date we are unable to announce our guest speaker, but we can assure you that if our present plans materialize, we will spend a most agreeable time in listening to some one very much worth while.

The Pontiac ladies are doing everything in their power to make the Convention a success and assure us of a busy, pleasant time. Special golf privileges have been extended by the Pine Lake Country Club. All ladies interested in playing this beautiful course are urged to bring their clubs.

As each year should show an improvement in interest and attendance over previous ones, let us aim to make the Fifth Annual Convention of the Auxiliary the very best one of all.

MRS. T. J. HARRIS.

Pontiac, one of our newest organized societies, is planning on entertaining the Woman's Auxiliary at the time of the Convention in September, from the twenty-second to the twenty-fourth.

An interesting speaker is promised. Helpful suggestions will develop during our county reports, a pleasant renewal of friendships, and a cordial welcome from the entertaining society is sure to await us. Let us make a special effort to attend this convention and to make it really the best one that we have had.

The program for the entertainment of the doctors' wives at the annual meeting is as follows:

Monday morning—Reception of wives of delegates.
Tuesday afternoon—Courtesy ride to Cranbrook and Bloomfield Hills.
Tuesday evening—Bridge Party.
Wednesday, 1 P. M.—Luncheon Pine Lake Country Club, Annual Meeting
Wednesday evening—Style Show or Special Theater.
Thursday—Courtesy rides and golf, etc.

WRITE FOR YOUR HOTEL RESERVATIONS

THE DOCTOR'S LIBRARY

THE MEDICAL CLINICS OF NORTH AMERICA. (Issued serially, one number every other month.) Volume 14, Number 6, and INDEX VOLUME. (New York Number—May, 1931.) Octavo of 300 pages with 55 illustrations. Per clinic year, July, 1930, to May, 1931. Paper, $12.00; cloth, $16.00 net. Philadelphia and London: W. B. Saunders Company, 1931.

THE MEDICAL CLINICS OF NORTH AMERICA. (Issued serially, one number every other month.) Volume 15, Number 1. (Mayo Clinic Number—July, 1931.) Octavo of 263 pages with 56 illustrations. Per clinic year, July, 1931, to May, 1932. Paper, $12.00; cloth, $16.00 net. Philadelphia and London: W. B. Saunders Company, 1931.

THE SURGICAL CLINICS OF NORTH AMERICA. (Issued serially, one number every other month.) Volume 11, No. 3. (New York Number—June, 1931.) 239 pages with 73 illustrations. Per clinic year (February, 1931, to December, 1931): paper, $12.00; cloth, $16.00. Philadelphia and London: W. B. Saunders Company, 1931.

FOOD ALLERGY, ITS MANIFESTATION, DIAGNOSIS AND TREATMENT, WITH A GENERAL DISCUSSION OF BRONCHIAL ASTHMA. By Albert H. Rowe, M.S.M.D., Lea & Febiger, Philadelphia, 1931.

This book represents a very excellent elaboration on the manifestations and treatment of food allergy including a rather complete bibliography of the subject. It contains many practical suggestions regarding diagnosis and treatment of these cases. Especially useful to the clinician are the diets and recipes for food-sensitive patients devised by the author, who is the originator of the ingenious method of treating food allergy by means of elimination diets.

Of necessity from a book which is entitled "Food Allergy," one expects that the food factor in connection with allergy may be unduly over-emphasized. Indeed an analysis of this valuable book reveals that the author may possibly be somewhat too enthusiastic regarding his subject. In one of his statistical tables he shows that among his patients 53 were sensitive to pollen, while only 49 per cent were sensitive to food. If one considers that the author lives in a part of the country where there is a very low pollen content of the air, one cannot help but feel that in the greater part of the U. S. A. pollen and other inhalants, as compared with food, are much more important in the causation of allergic symptoms, a fact which should have been stressed more emphatically.

THE DOCTOR AND HIS INVESTMENTS. By Merryle S. Rukeyser, B.Lit., M.A. Price $2.50. P. Blakiston's Son & Co., Inc., Publishers, 1012 Walnut St., Philadelphia, Pa.

"Men think in herds; they go mad in herds; they recover their senses slowly and one by one." So quotes this author, and, slowly and one by one, we are coming to, after the debauch of 1929, and in the process Mr. Rukeyser's book seems homely, wholesome and timely. One cannot refrain from wondering, though, if his message would have had an audience three years ago. If that were possible, amid the prevalent mad scramble for wealth, many a 1931 headache might have been obviated. "Too many go to the financial doctor only when they are ill," says Mr. Rukeyser. Here we stand at the bar of his book and plead "guilty." We wonder if our generation doesn't owe an apology to succeeding generations for our madness. Since we cannot retrace our steps, the doctor who has anything left to invest will be well advised to give this book a careful perusal. The author very properly devotes about one-half of his book to the subject of "Investment Policy," seeking to lead his reader away from haphazard investing to a scientific approach. Next he enters into the more practical consideration of the doctor's proper attitude toward stocks, bonds, real estate, life insurance, annuities, investment trusts, etc. Probably better still, he delves into his correspondence files and produces letters from doctors, spreads them out before us, drawing therefrom concrete examples of how his medical friends the country over have, in confidence, told him they were in the habit of proceeding. The author may fail in getting the vital message across on "Investment Policy" and his readers may be so satiated with stocks, bonds, etc., they will give no heed, but his discussion of concrete cases is not apt to fail of response. The style is simple, the plans suggested are attractive and workable and withal sane and conservative. If history fails to repeat, the fraternity may have little opportunity to practice what this man preaches, but since the world has optimism enough left to believe that good times will come again the doctor should set his "investment policy" house in order now, then when prosperity deigns to smile on us again he will be all set and can afford to rest content and let the rest of the world go mad.

THE COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION FOR 1930. Volume XXII. Edited by Mrs. Maud H. Mellish-Wilson, Richard M. Hewitt, B.A., M.A., M.D., and Mildred A. Felker, B.S. Octavo Volume of 1,125 pages with 234 illustrations. Philadelphia and London: W. B. Saunders Company, 1931. Cloth, $13.00 net.

This is a difficult book to review adequately for the simple reason that it contains so much diversified reading matter, covering as it does the whole range of medicine and surgery. Regarding the quality of the papers little need be said. A volume from the Mayo Clinic is always hailed as being a scholarly contribution on what ever subject or subjects it happens to treat. In the present book we have forty-nine papers relating to the alimentary tract; twenty-one to the genito-urinary organs; six to the ductless glands; twelve to the blood and circulatory organs; eleven to the skin and syphilis; twenty-three to the head, trunk and extremities; eight to the chest; fourteen to the brain, spinal cord and nerves; nine papers descriptive of technic; while twenty-seven papers are devoted to miscellaneous subjects. These volumes, as they appear from year to year, may be looked upon as a series on "recent advances" that have taken place in medicine and surgery and allied subjects. The volume is well indexed both in regard to subjects and authors. Though it contains over eleven hundred pages, it is not by any means a bulky volume, which makes it a very convenient work for general reference.

RECENT ADVANCES IN MEDICINE, CLINICAL LABORATORY THERAPEUTIC by G. E. Beaumont, M.A., D.M. (Oxon.) F.R.C.P., D.P.H. (Lond.), and E. C. Dodds, M.V.O., M.D., Ph.D., B.Sc. Sixth Edition With 51 Illustrations. Philadelphia. P. Blakiston's Son & Co., Inc., 1931. Price $3.50.

We have had occasion to review from time to time the volumes which form this series of Recent Advances in Medicine and Surgery and allied specialties. It is two years since the last edition of Recent Advances in Medicine appeared and as a result the 1929 edition has been subject to thorough revision. The present volume contains articles on recent studies uremia, the graphic method of determining basal metabolism with the Benedict-Roth apparatus which has been described in detail. The treatment of pernicious anemia by stomach extract. A special section has been devoted to the Aschheim-Zondek test for the detection of early pregnancy. The subject of diabetes mellitus, and the relationship of acetone bodies to diabetic coma. The importance of lactic acid in the gastric con-

tents in cases of suspected carcinoma in view of the latest work done on the subject. Each chapter is supplemented by copious reference to the current medical literature in which the various subjects are first dealt with before finding their way into medical books. These series of recent advances serve as an important evaluation of work reported in current medical journals.

RECENT ADVANCES IN PULMONARY TUBERCULOSIS by L. S. T. Burrell, M.A., M.D. (Cantab.), F.R.C.P. (Loud.). Second edition with 32 plates and 17 text-figures. Philadelphia. P. Blakiston's Son & Co., Inc., 1931. Price $3.50.

This is the second edition of Recent Advances in Pulmonary Tuberculosis. As is well known, recent work on tuberculosis has been largely along surgical lines, and with this point of view the author has thoroughly revised and enlarged the chapter on thoracoplasty, extra-pleural pneumolysis and phrenic evulsion. He has also included modern views concerning salt-free and other diets together with the evaluation of vitamines. Six chapters, or one-half of the book, are concerned with the various methods and agents of treatment, while the author adds a chapter on prevention, one on diagnosis, one on prognosis as well as a chapter on X-ray diagnosis, which is well illustrated by half-tones. These illustrations deal for the most part with fairly pronounced typical cases. The author advances the opinion that the clinical and the X-ray examinations should be performed by different individuals, thus giving the patient the advantage of two different examinations and opinions. "The physician who becomes his own radiologist," says the author, "must lose the fineness of outlook and that power of summing up all the evidences which are so important." The important subject of light therapy is dealt with at length. In view of the universality of phototherapy, the indications and contra-indications as outlined in this chapter are of special importance.

MEDICAL JURISPRUDENCE. By Carl Scheffel, Ph.B., M.D., L.L.D. Published by P. Blakiston's Son and Company, Inc., Philadelphia, Pa., 1931.

This handy volume is divided into seven chapters. It is well indexed. In these days of constantly increasing malpractice and other suits being brought against physicians, it behooves us to know our rights and liabilities not only as citizens but as doctors. "Ignorance of the law is no excuse." This should be constantly in the mind as one goes about his daily practice. No one, general practitioner, surgeon or specialist should be without a working knowledge of medical jurisprudence. The introduction is excellent. In Chapter I the author deals with the Contractual Relationship of the Physician. Chapter II, How the Law of Agency Involves the Physician. Chapter III, Physician and Torts. The word "Tort" means legally "civil wrongs for which legal redress is available." Chapter IV, Witness and Evidence, most important to the physician about to testify. Chapter V, the Property Interests of Physicians. Here are answered such questions as, who owns the prescription, hospital reports on X-ray findings, group practice and narcotics? Chapter VI, Physicians and Criminal Responsibility. Chapter VII, rather unusual in a medical book, "Physicians as Lawmakers," the discussion a mooted question as we in Michigan know. The Wayne County Medical Society through the efforts of Dr. J. M. Robb, the retiring President, took the first step along this line when he held a very successful joint meeting of the Wayne County Bar Association and the Wayne County Medical Society. Cases illustrating the various legal questions involved are quoted. It is an excellent book on a subject of most timely interest.

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1930. Cloth. Price, $1.00. Pp. 91. Chicago: American Medical Association, 1931.

This book is essentially a record of the negative actions of that distinguished body, the Council on Pharmacy and Chemistry of the American Medical Association; that is, it sets forth the findings concerning medicinal preparations which the Council has voted to be unacceptable for recognition and use by the medical profession. Many of the reports record outright rejection or the rescinding of previous acceptances; others report in a preliminary way on products which appear to have promise but are not yet sufficiently tested or controlled to be ready for general use by the profession.

NEW AND NON-OFFICIAL REMEDIES, 1931, containing descriptions of the articles standing accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1931. Cloth. Price, postpaid, $1.50. Pp. 481 + LVI. Chicago: American Medical Association, 1931.

This volume is the annual publication of the Council on Pharmacy and Chemistry of the American Medical Association giving the latest authentic information concerning those of the newer medicinal preparations found worthy of the consideration and use of the medical profession. Each year the Council scans the general articles under which the various preparations are classified and revises these to conform to the latest and best medical thought.

A glance at the preface shows that a number of preparations have been omitted because they conflict with the rules that govern acceptance, because their distributors did not present evidence to demonstrate their continued acceptability, or simply because the manufacturers have taken them off the market. Important revisions have been made in a number of the general articles and in the descriptions of various preparations. Among the new preparations that have been found by the Council during the past year to be eligible for admission to the book are: Amytal and Pulvules Sodium Amytal, 3 grains, barbituric acid derivatives for use preliminary to surgical anesthesia; Thio-Bismol, quinine bismuth iodide, sodium potassium bismuthyl tartrate, and Tartro-Quiniobine, bismuth compounds for use in the treatment of syphilis; Scillaren and Scillaren-B, preparations containing the squill glucosides; two new cod liver oil concentrates; Synephrine, a new vasoconstrictor, and synthetic thyroxine.

New and Non-official Remedies should be in the hands of all who prescribe drugs. The book contains information about the newer materia medica which cannot be found in any other publication.